DEVELOPMENT OF A COMMUNITY EMBEDDED SUSTAINABLE URBAN DESIGN PROCESS FRAMEWORK FOR NEIGHBOURHOOD CONTEXT, UK

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LIST OF ABBREVIATIONS

1. UD - Urban Design
2. KF- Key Factor
3. FOBT- Field Observational Transcript
4. DR-Document Review
5. PPO- Principal Project Officer
6. IV-Interview
7. CF- Community Forum
8. CIV- Community Interview

ABSTRACT

City beautification was the fundamental purpose of urban design at the time it was introduced as a separate profession. Over time, the scope and objectives of urban design have changed. Today, urban design plays a key role in the creation of sustainable urban environments in terms of the 'triple bottom line', that encompasses the three dimensions of life–economics; social and environmental sustainability. Therefore, today, urban design seeks to enhance the life of the city and its inhabitants in socio-economic and environmental terms.

Even though urban design has a wider scope for achieving sustainability on all its three fronts, the current process of urban design has often become an obstacle to attaining this scope. The current urban design process is top-down, i.e., generally the urban designers or planners design the urban environment and at a later stage the community may have some involvement. There are serious criticisms of this process as it may not touch the “ground” level community, and therefore, there is a serious risk these projects will fail to create sustainable environments. Accordingly, in order to overcome the drawbacks of the current top-down process, researches have discussed implementing a bottom-up process. A bottom-up urban design process will give prominence to the local community in the urban design process and it will assist in the identification of locally significant factors and the exact problems and issues within the area which will then ensure that the urban design solutions will address the sustainability issues.

However, it is found that the bottom-up urban design process has its own negative features which can adversely affect the creation of sustainable urban designs. In the meantime, it is discovered that the current top-down urban design process has many positive features which can positively assist for the creation of sustainable urban designs.

Accordingly, it is illustrated that neither the current top-down process nor the suggested bottom-up process will address the critical issues for achieving the current scope of urban design and, therefore, a ‘balanced’ community embedded urban design process was required to overcome the current research gap.

This research used the ‘onion’ methodological framework and the research strategy was case study. Two live neighbourhood urban design projects in North West England were used as the case studies and the key data collection methods were semi structured interviews, focus group discussions and non-participant observation.

The analysis resulted to derive 07 key factors from the case study 01 and 10 key factors from the case study 02 and these key factors were further analysed in order to develop components for two initial urban design process frameworks from the two case studies. Thereafter, the data were triangulated and the new urban design process framework was developed. Finally, at the latter stage of the research, the new urban design framework was validated via experts in urban design. Accordingly, this research developed a new community embedded and balanced urban design process framework to replace the current standard top-down process to produce sustainable urban design solutions in a neighbourhood context in UK.

Chapter 1 - INTRODUCTION

1.1- BACKGROUND TO THE RESEARCH

Urban design is the art of making places in an urban context which involves designing groups of buildings and the spaces and landscapes between them and also creating frameworks for successful development (Urban Design Group, 2011). Greed and Roberts (2014) state that a debate exists over the definition of urban design, however, they explain that the urban planner perceives land-use, job creation and equity in a two dimensional sense whereas the urban designer thinks about how to make the area work as a place which is memorable and pleasant in a three dimensional sense. As Greed and Roberts (2014) describe the exact definition of urban design is still controversial but, as explained in section 2.3, urban design can be defined as the art of making three dimensional places in urban areas.

Krieger and Saunders (2009) have stated that, when it was introduced as a separate profession, city beautification was the fundamental purpose of urban design. Over time, the scope and objectives of urban design have changed so that now, urban design plays a vital role in city development. As Wall and Waterman (2010) state, today, urban design functions at the crossroads of architecture, landscape architecture and city planning. It has become a collaborative discipline that combines with others to create three-dimensional forms and spaces that function effectively for people. Therefore, urban design seeks to enhance the life of the city and its inhabitants in socio-economic and environmental terms.

While urban design seeks to enhance the life of a city and its inhabitants in socio-economic and environmental terms (Wall & Waterman, 2010), the concept of sustainability has become integrated with urban design. As Ritchie and Thomas (2013) describe, sustainable urban design should share the values of social, economic and environmental sustainability. The work of Farr (2012) also emphasises the need for integrating social, economic and environmental aspects of urban design to provide sustainable design solutions.

In today's world the scope of urban design is wider, endeavouring to enhance the socio, economic and environmental life of a city, however, the current process employed in urban design is often seen as too top-down in method and there are serious concerns and criticisms over this issue. The main criticism is that a top-down process does not help to achieve sustainability indicators usually explored in today's urban context (Roy & Ganguly, 2009). As the same authors state, the classic approach to urban development (top down) provides early and high level planning, and they argue that a bottom-up approach makes more sense for instigating sustainability in urban design. Greed and Roberts (2014) ask the question 'who are the real designers?' which prompts two sub–questions; 'professionals?' or 'community groups?' As shown in section 2.5 the urban professional already has a contextual base, i.e., the 'place' that requires development; understanding of 'place' is strengthened with the help and participation of concerned stakeholders. In fact 'place making' is now recognised as a vitally important dimension of urban design facilitated by community engagement. Accordingly, the background for this research is formed to develop a new Urban Design (UD) process framework to replace the current traditional top-down process and to guide designers to adopt a more community-oriented UD process which can tackle the socio, economic and environmental issues for the creation of sustainable urban designs.

1.2- JUSTIFICATION FOR THE RESEARCH

As briefly described in section 1.1 the current scope of urban design is to create sustainable urban environments on three fronts (social, economic and environment). As Fraser, Dougill, Mabee, Reed, and McAlpine (2006) state, experts in development simply comply with the requirements of funding agencies in the development process and employing a top-down process may alienate local community members and fail to capture locally significant factors. Therefore, as the above authors have discovered, a proper bottom-up process, where the community can engage actively and effectively in the development process is required. Furthermore, the same authors note that a proper bottom-up process will help to achieve better performance in attaining sustainability indicators. Greed and Roberts (2014) state that in years gone by urban design was people-less, to do with creating aesthetically pleasing stage sets, and very much a top-down process in which the 'designer' looked down on 'his' drawing board, took a 'God's eye view', and thus created the 'Grand Design'. However, Greed and Roberts (2014) state that urban design today has much more to do with people's

needs at street level; with functionality rather than aesthetic consideration. As Greed and Roberts (2014) further deliberate even though urban design has the scope to create functionally sustainable places rather than aesthetic pleasantness, there are still two schools of thoughts among urban designers, one group focuses on top-down urban design processes whilst and other group focuses on bottom-up urban design processes though both approaches have their own advantages and disadvantages. Carmona, Tiesdell, Heath, and Oc (2010) state the producer-consumer gap is the key issue in urban design. The authors introduce urban designers as 'producers' and the people who actually use the places as 'consumers'. As they have stated the lack of direct consumer input is the key reason for the producer-consumer gap. It is clear that while the consumer does not have an input into the process, the producer produces 'poor quality' development serving narrow financial principles. Accordingly, they propose a combined methodology to bridge the gap between producer and consumer.

The above literature indicates there are serious issues with the current top-down urban design process in its attempt to achieve the scope of current urban design whilst, as also indicated above, there are some designers who try to impose a full bottom-up urban design process which has its own advantages and disadvantages . However, as stated by Carmona et al. (2010) a combined process comprising producers and consumers is ideal for urban design. Currently, neither designers nor researchers have made an adequate attempt to build a balanced urban design process which encourages community engagement while also devolving power and authority to the designers. The researcher have further demonstrated this broad gap in section 2.5. Therefore, in this research, the researcher attempts to build a framework for the urban design process which embeds community engagement but also gives adequate power and authority to urban designers.

As stated, the researcher's intention was to develop a framework which is community embedded but balanced by the urban designers; accordingly in the first instance the researcher evaluated the current top-down urban design process to observe the potential of the current top-down process, and thereafter, evaluated the integrated collaborative approach of the regenerative design process as a basis for the study of a bottom-up process. Evaluation of the regenerative design process revealed many important features of a pure bottom-up process whilst the concept also seeks to address issues of sustainability in the same way as the urban design process. As Mang (2001) describes regenerative design is the proposed approach that best reflects the thinking that will shape the next phase of development within

the field of sustainable design. Furthermore, this approach has been successfully employed in a number of development projects such as agricultural development projects and housing development projects in Mexico and the USA. Therefore, using this concept as a basis for the study is ideal, however, the concept should be evaluated in order to observe the potential for integrating regenerative design features into an urban design context in United Kingdom, and thereby, leading to the development a new UD process framework. The concept of regenerative is explained, in detail, in section 2.6.2.

Based on the arguments and discussions from various authors described in this section, the endeavour of the researcher, to develop a new urban design process framework, is firmly established.

1.3- SCOPE OF THE RESEARCH

As discussed by Carmona et al. (2010) an urban design project has two main processes. The first process is the design process and the second is the implementation process. The design process attempts to identify problems in the area, to analyse the problems envision and develop solutions and then to make decisions and design the development based on the selected solutions. The implementation process deals with investors, process of land accusation, land clearance, stock transfer etc. The implementation process for urban design becomes a vast area which should be studied separately. Therefore, this research was intended to develop a framework for the design process for urban design but not the implementation process for urban design.

Urban design is a vast field which can be applied to different urban contexts. As Moor and Rowland (2006) describe urban design's intention is to create successful villages, towns and cities. As Urban Design Group (2011) mentions urban design shapes the physical setting for life in cities, towns and villages. The arguments above indicate that urban design solutions can stretch from region level to that of an individual neighbourhood. Accordingly, in this research, the researcher has focused on developing an urban design process framework for neighbourhood design projects. The main reason for scoping the study to neighbourhood urban design is the complex nature of the subject. As justified in section 1.2, the researcher intends to develop a community embedded, urban design framework, therefore, if the researcher scopes the study to a region, city or at town level, the number of stakeholders in the project would be much higher than at neighbourhood level and the researcher would not

be able to complete the project within the limited time framework of the doctoral research. As explored by Wilson (2009), neighbourhoods create and form communities and community involvement become meaningful when it is applied in a neighbourhood context. Supporting the point of view of Wilson (2009), David (2008) confirms that engaging residents from the neighbourhood is the foundation of community engagement. As endorsed by these authors the most suitable urban design context for development of a community embedded urban design framework is a neighbourhood scaled urban design project.

Furthermore, even though the researcher carried out the literature review from a global perspective, the case studies used as a basis for developing the new framework were undertaken in the UK. Therefore, the findings from the research are mostly applicable to the urban design context in UK.

1.3.1- What is a Neighbourhood?

As scoped in the section 1.3 this research is focused into the neighbourhood context of urban design. Accordingly, it is important to have a concise idea on what is meant by a neighbourhood.

The concept of neighbourhood can be defined from geographical perspective as well as from social perspective. According to Bowden (1972) neighbourhood can be identified as the state or value of living near one another, a region, territory with regards to some common characteristics. Chaskin (1997) states that neighbourhood is a geographical or spatial unit and community is a social unit. Hipp, Faris, and Boessen (2012) agree that the physical closeness is an essential part of the concept of neighbourhood, but the notion implies the boundaries of social environment as well. Confirming this fact, Harris (2006) introduced the concept of neighbourhood as a residential area where the residents live near to other with a sense of belongingness but usually all citizens have a right of access to that residential area.

Accordingly, it can be understood that neighbourhood is not merely a particular geographical entity but also a spatially defined residential area with some common social characteristics.

1.4- RESEARCH AIM & OBJECTIVES

1.4.1- Research Aim

The aim of the research is to develop a new community embedded and balanced urban design process framework to replace the current standard top-down process to produce sustainable urban design solutions in a neighbourhood context.

1.4.2- Objectives

- To identify and inquire the origin and development of urban design and its scope
- To identify and study the current urban design process and suggestions for a bottom-up urban design process
- To identify the key factors of the current UD process to successfully achieve the current scope of urban design
- To study and employ the regenerative design process in an UD context to find out the key factors of a bottom-up process to successfully achieve the current scope of UD
- To develop a new conceptual UD process framework to achieve the current scope of urban design based on the prospects and constrains identified in both top-down and bottom-up processes
- To validate the conceptual framework via experts and finalise the new urban design process framework

1.5- RESEARCH METHODOLOGY

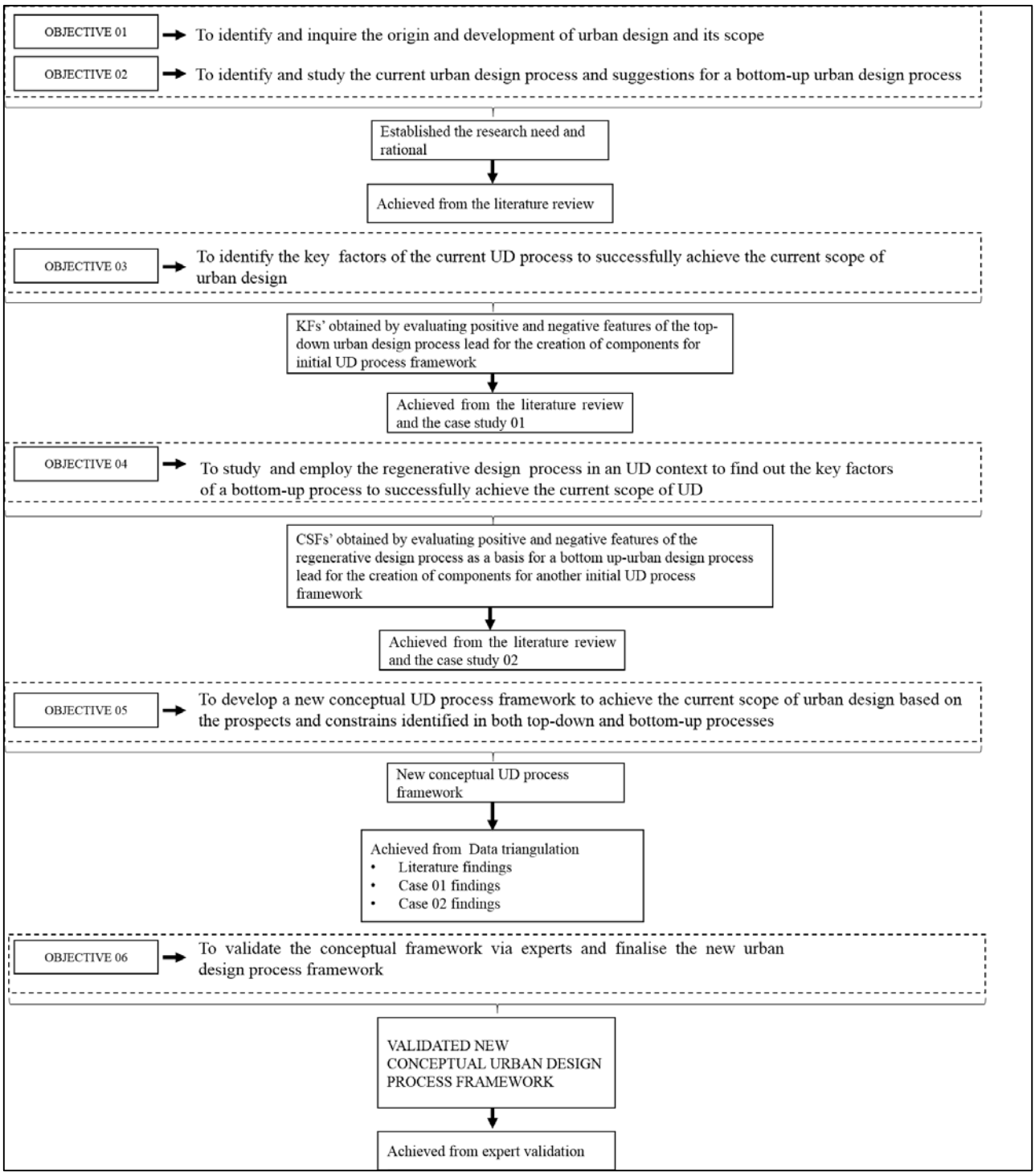
The methodology for this research was designed on the concept of 'the research onion' (Saunders et al., 2007). The nature of the investigation led to the establishment of the philosophical stance for this research which then led to the identification of appropriate research approaches and research techniques to collect and analyse data. The operational aspects of this research were organised based on the principles of the "hermeneutics spiral" (see section 3.9.2). Based on the above principles, the operation of this research can be categorised into two main stages. The first stage was to conduct a comprehensive literature review and the second stage encompassed two empirical investigations. Comprehension of the subject matter, gained through the literature review, assisted in framing the research

study and to conducting empirical investigations which did not initially apply to the two empirical investigations. The two empirical investigations were inductively conducted and then triangulated with the data gained from the literature review. Finally, the findings from the empirical investigations were validated using experts in field of urban design. The outcome of these investigations provided the basis to bridge the research gap indicated in section 1.2 while achieving the research aim and objectives.

As described in section 3.4, this research was largely a theory building attempt rather than a theory testing attempt even though the research has some theory testing elements. It involved a study of the features of the current top-down urban design process and specific features of a bottom-up urban design process in real life urban design projects, and in that sense, the research tested existing theories, but ultimately, the research built a theory based on the tested elements from existing theories. Furthermore, this study was largely context specific, demanding focus on in-depth studies of small samples from within uncontrolled environments. The nature of this study placed this research, philosophically, mainly within the interpretive research paradigm. Within this philosophical stance, this research was identified as appropriate for being conducted through the inductive research mode; however, the research can also be positioned within the abduction research mode. Furthermore, from the perspective of time horizons the research is more likely longitudinal and uses a qualitative research approach (see sections 3.6 and 3.7). Tactically, this research was designed to employ case study as the research strategy. In one particular empirical investigation, data collection was mainly through non-participant observation while giving some prominence to in-depth semi-structured interviews. The data collection from the other empirical investigation was mainly based on in-depth semi-structured interviews and focus group discussions. The data were triangulated using document reviews from both empirical investigations. The analysis was undertaken using two specialised qualitative data analysis software: NVivo and Inspiration. NVivo was used for data reduction and concept identification, while Inspiration was used for mind mapping the concepts identified (section 3.12).

The researcher followed the above described research methodology in order to achieve the research aim and the objectives. Figure 1.1 presents the development of the research and how the research objectives were achieved according to the research methodology used in this study.

Figure 1-1 Development of the research according to the research methodology



1.6- STRUCTURE OF THE THESIS

Chapter one introduces the area of the study, the research problem and the justification.

Chapter two synthesises the literature related to the subject domain of the thesis. The first few sections of the chapter identify the origin and development of the profession, seminal work from urban design and the relationship between urban design and the concept of sustainability. Thereafter, the following sections investigate the current urban design process and its implications and the viewpoints of different authors on alternative processes for urban design. Finally, the literature synthesis investigates the concept of regenerative design which was the basis for evaluating the second empirical investigation.

Chapter three describes and justifies the methodology followed in this research. The chapter justifies the use of the "onion model" as the research model while justifying the interpretivist philosophical stance of the research, the inductive research approach, mixed research strategy, the qualitative research choice and the choice of research methods.

Chapter four presents the key findings from case study 01.

Chapter five presents the key findings from case study 02.

Chapter six presents the cross case analysis, formation of the conceptual urban design process framework, triangulation with literature and the validation of the urban design process framework via expert interviews.

Chapter seven presents the conclusions and recommendations for further research.

1.7- SUMMARY OF THE CHAPTER

This chapter discussed the area of the study and the research problem and provided the justification for the research. Furthermore, the appropriate methodology adopted for the research and for the empirical investigation was also discussed in this chapter, providing justifications where appropriate. The next chapter presents the literature synthesis for the research study.

Chapter 2 LITERATURE SYNTHESIS

2.1- INTRODUCTION

Chapter one focused on setting the research background while providing an overview of the organisation of the thesis. The focus of chapter two is to review and synthesise the available literature relating to the current scope of urban design and urban design issues on the current process of urban design. The structure of the chapter is presented below:

- Firstly, the origin and background of urban design is discussed detailing why, when and how the urban design profession originated. The specific reason for exploring this issue is to show the difference between the previous scope of urban design and the current scope of urban design.
- Secondly, the differences and similarities of urban design and urban planning have been explored in order to remove any possible confusion the reader may get due to ongoing debate about this matter
- Thirdly, a ‘critical look back’ has been made into seminal work on urban design in order to provide a broad understanding about the subject while introducing the current scope of urban design
- Fourthly, the current process of urban design is explored, along with its implications, to achieve the current scope of urban design. This literature synthesis further identifies the research gap and reinforces the need for a new urban design process framework.
- Thereafter, the literature informed features for a sustainable UD process framework is presented

- In the section 2.6, a study conducted about the regenerative design concept which was the primary basis for one empirical investigation is presented.

2.2- THE ORIGIN & BACKGROUND OF URBAN DESIGN

It is generally considered that urban design, as a profession, emerged in the 1960s, although there is evidence of the application of some urban design principles in ancient city developments (Sert, 2006). As Moor and Rowland (2006) describe the international conference that took place in 1956 at Harvard's Graduate School of Design on the future of cities pioneered the creation of the discipline. Furthermore, as Moor and Rowland (2006) describe the editors of the conference's proceedings have stated that the conference revealed two working definitions for urban design. The first definition articulated that urban design is part of city planning and deals with the physical form of the city. The second definition was that urban design is a subset of city planning specialising in the creative part of city planning that engages with the artistic design aspect. Lang (1994)'s ideas on the origin of urban design confirms to the above arguments. Lang points out that, in the late 1960s in the USA, the term 'urban design' replaced 'civic design' as the name of the field and also that urban design first originated with the American city beautification movement. Larice and Macdonald (2007) describe theoretical ideas and urban design approaches that serve as the main influences on modern cities and today's field of urban design was born in the 1960s. Carmona et al. (2010) state the profession of urban design originated after the 'urban design conference' at Harvard Graduate school in 1956 replacing the more traditional and narrower term 'civic design'. Carmona et al. (2010) further state the profession was typified by the concept of city beautification by concentrating on the visual qualities and aesthetic experience of urban spaces, rather than the myriad cultural, social, economic, political, and spatial factors and processes contributing to successful urban places.

The above discussion informs two important facts about the origin of urban design, firstly, it demonstrates that urban design was developed as a separate profession in the 1960s, and secondly, it informs that urban design was fundamentally introduced for the purpose of city beautification considering only the aesthetic aspect of cities. Larice and Macdonald (2013) specify the specific reason for the emergence of the profession of urban design in 1960s as being the beautification of cities, and as the they have stated cities in the 1960s were heavily polluted due to 100 years of industrialisation and urban sprawl was seen everywhere in cities. In western countries industrialisation had almost come to an end by this time and patterns of livelihood were changing to a more service-based economic sector. Therefore, there was an extensive need to regenerate cities from the increasingly deprived situations caused by declining industries and to bring life back into cities. However, at that time, the architecture's role was concentrated on designing buildings and urban planning was more policy-oriented and did not focus on specific town and street design; therefore, there was no profession which could undertake the care of the aesthetic aspect of cities and concentrate on how to create beautiful cities. Consequently, an outcome of the international conference that took place at Harvard in 1956 was a discipline to bridge the gap between urban planning and architecture.

The discussion set out in this section revealed when and where the profession originated, its original scope and the key reason for the introduction of the profession. The next section will discuss the general definitions of urban design while differentiating urban design from urban planning.

2.3- URBAN DESIGN AND URBAN PLANNING

This section seeks to differentiate between the two disciplines of urban planning and urban design. In fact the two disciplines are interrelated but there are certain features which distinguish urban design from urban planning. The key aspect of this literature synthesis is to inform the reader that the process framework developed is specifically focussed on an urban design process framework. Section 2.3.2.1 firmly justifies how this particular research is centred within the scope of urban design rather than urban planning.

School of Urban Planning McGill University (2015) describes urban planning as a technical and political process concerned with the welfare of people, control of land use, design of the urban environment including transportation and communication networks, and protection and enhancement of the natural environment. Reinforcing the definition of School of Urban Planning McGill University (2015), Young Greg and Stevenson Deborah (2013) have stated that modern urban planning embraces the city as a dynamic and capitalistic centre of production, distribution, consumption and reproduction. As the authors state; modern urban planning marked a distinct shift from the customary laying out of fortifications and grand urban spaces or avenues typical of pre-industrial planning. Hall and Tewdwr-Jones (2010) specify that conventional urban planning is the planning of a spatial or geographical component in which the general objective is to provide for a spatial structure of activities (or of land uses); which is somewhat better than the pattern that exists without urban planning. American Planning Association (2015) has introduced urban planning as a dynamic profession that works to improve the welfare of people and their communities by creating more convenient, equitable, healthy, efficient and attractive places for present and future generations. Gleye (2015) introduces planning as a profession which has design-oriented physical planning and policy-oriented socio-economic planning. Accordingly, the author affirms that 'city planning' deals mostly with the aspect of physical planning while urban planning deals mostly with the policymaking stream.

Based on the above arguments, it is noted that urban planning was initially thought to be a discipline which provides spatial structures focusing on the creation of different land uses. However, as the above authors have explored, modern urban planning is a more dynamic profession which brings together many disciplines in order to guide and direct the overall functionality of cities rather than just identifying land uses. Accordingly, urban planning can generally be defined as a technical and political process which mainly creates policies regarding the arrangement of land usage in order to create jobs, economic wellbeing, education, welfare etc., for the inhabitants of the locality.

Moughtin (2003) introduces urban design as a discipline which creates urban environments that are both structurally and functionally sound, while at the same time, providing pleasure for those who occupy the development. The author mentions that urban design is at an interface between architecture and planning but is quite distinct from both disciplines, accordingly, he mentions the main actors in urban design are the squares, the streets and buildings that make up the public face of our towns and cities.

The discussion of Moughtin (2003) articulates that urban design is a profession which is more oriented on the functionality about the urban spaces while considering about the aesthetic aspect. Accordingly as discovered from Moughtin (2003) urban design solutions should provide pleasure to its users, this informs that urban design solutions are more action oriented than policy oriented as in urban planning. The UK government commissioned a guidance manual for local authority planners entitled 'The Urban Design Compendium', (Llewelyn Davies Yeang & Alan Baxter and Associates, 2000) reinforces the definition of Moughtin (2003). The UD compendium (Llewelyn Davies Yeang & Alan Baxter and Associates, 2000) states that urban design is concerned with creating connections between people and places, movement, urban form, nature and the built environment. The aim of urban design is to create successful villages, towns and cities. Furthermore, the manual states that urban design is the key to creating sustainable developments, conditions that create a flourishing economic life, the sensible use of natural resources and for social wellbeing. The manual further states that good urban design can help to create lively places with remarkable character, streets and public places which are safe and accessible for all and which are pleasant to use and on a human scale.

The above definitions indicate urban design is a comprehensive discipline which seeks to create functional places which are aesthetically sound, safe and attractive.

Carmona et al. (2010) define urban design as the process of making better places for people. As the authors define, urban design stands merely in the place-making continuum. Barnett (2014) disagrees with this view and states that urban design goes beyond the place making continuum. Consequently, he argues that urban design problems are larger and more complex than just individual public spaces, as the authors describe urban design, but include the design of new communities, the reorganisation of waterfronts, the design of large-scale developments such as Canary Wharf, neighbourhood revitalisation and preservation of historic districts. Barnett describes urban design as a comprehensive and consistent discipline which needs to work for the full range of urban design situations.

Even though Barnett (2014) disagrees with the definition of Carmona et al. (2010) which introduces urban design as a discipline for place making, he does not state that urban design is not on the place making continuum; his argument is that urban design goes beyond place making and creates new functions and activities for urban entities. This idea of Barnett (2014) is strengthened by the definitions of Llewelyn Davies Yeang and Alan Baxter and

Associates (2000) and Moughtin (2003). Similar to Barnett (2014), Piłat-Borcuch (2015) state that urban design is more generic and can be applicable to the place making continuum and beyond; the author describes urban design as being concerned with the relationship between buildings and the people that make use of them and goes beyond the architectural merits of the building. Urban design deals with the spaces between buildings, the way people use the spaces and the experience of the city as people move from one place to another.

In general terms, based on above definitions, urban design can be defined as a systematic approach which helps to create and deliver successful places for people; however, in addition, urban design is there to create place making and to address many issues in the built environment. In delivering successful places it considers the functionality of the place concerned, from its social aspect, economic aspect and also its physical appearance whilst also considering the natural environment.

The definitions of urban design and urban planning, discussed above, reveal that urban planning and urban design share similar objectives and features for urban development; but the discussion also reveals a number of features which distinguish urban design from urban planning. However, as Greed and Roberts (2014) bring to light, there is still controversy about the definition of urban design and its position within urban development; they show that a number of planners believe urban design consists of 'prettifying' the detailed aspect of planning, such as, pedestrianisation, bollards, townscape schemes; or that planners have a remote and rather vague idea that any matters concerned with aesthetics and architecture are somehow 'urban design'. Conversely, as the same authors describe, architects may see urban design as a larger extension of architecture; whereas landscape architects believe urban design is the act of landscaping cities. Substantiating the idea of Greed and Roberts (2014), Talen (2011) states urban design is a central dimension for effective urban planning, therefore, urban design should return to its twentieth century position which is to be situated within urban planning where it would be better able to serve the public interest.

Therefore in sections 2.3.1 & 2.3.2 the researcher seeks to describe the differences and similarities of urban planning and urban design in order to differentiate their positions for the purposes of this study.

2.3.1- SIMILARITIES BETWEEN URBAN DESIGN & URBAN PLANNING

Madanipour (2006) states that ‘urban planning and urban design are getting closer together’ as urban design makes planning “more forward looking” and “by developing visions for the future of their area.” However, Gunder (2011) argues against by stating that urban design and urban planning have never been separated, and he further states that urban design should return to its twentieth-century position within urban planning and be principally practiced as an important subset of wider spatial planning. He suggests the most effective form of planning is urban design but it is not separate from urban planning. Talen (2011) strongly supports the argument of Gunder (2011) by stating that urban design is a central dimension of effective urban planning but is not a separated discipline. The same author has further explains that urban design is, unfortunately, often considered a subset of architecture with a little planning thrown in for good measure. She has stated that planners should have three dimensional thinking ability to create successful urban designs but within the discipline of urban planning. Similar to Gunder (2011) and Talen (2011), Taylor (1998) has stated urban design is a central dimension of urban planning and he further says, the world leadings cities are the demonstration to prove this fact.

Based on the arguments presented above, it can be argued that urban design is an integral devoted part of urban planning, rather than a separate profession. Therefore, the similarity between the two disciplines is that urban design is represented in detailed urban planning and development.

Despite the above arguments, there are also many strong views and arguments which distinguish urban design from urban planning. Section 2.3.2 explores those differences.

2.3.2- DIFFERENCES BETWEEN URBAN DESIGN AND URBAN PLANNING

Cuthbert (2007) describes urban design as an open system that uses individual architectural elements and ambient space as its basic vocabulary and is focused on social interaction and communication in the public realm; but he differentiates urban planning from urban design by arguing that urban planning is an agent of the state for controlling the production of land for the purposes of capital accumulation and social reproduction. Furthermore, Cuthbert (2007) describes the structure of urban design as often dealing with the morphology of space and form; whereas the structure of urban planning deals with government bureaucracy. Supporting the viewpoint of Cuthbert (2007), Carmona et al. (2010) differentiate urban

design by using two terms; *discipline* and *scal*e. As they explain, as a *discipline* urban design encompasses and sometimes subsumes a number of disciplines and activities: architecture, town planning, landscape architecture, surveying, property development, environmental management, etc., They also argue that urban design is not just detailed architecture, small scale planning, civic beautification, urban engineering or just a visual/aesthetic aspect. In considering *scale,* Carmona et al. (2010) note that urban design does not consider individual buildings, as in architecture, nor neither settlement development as in urban planning, and therefore, it lies in between the intermediate scale of architecture and urban planning. They also state that urban design typically operates at and across a variety of spatial scales but does not vertically integrate 'wholes'; they describe urban design as operating in between 'wholes' and parts of 'wholes'. Similar to the differentiation of Carmona et al. (2010), American Planning Association (2012) differentiate urban design from urban planning using three terms; *scale, orientation, and treatment of space.* The scale of urban design is focussed primarily on the street, park, or transit stop, as opposed to urban planning, which is focussed on the larger community project or activity centre. The orientation of urban design is both aesthetic and functional putting it somewhere between art, whose object is beauty, and urban planning, whose object is utility. The treatment of space in urban design is three-dimensional with vertical elements rated as important as horizontal elements. Urban planning, on the other hand, is customarily a two-dimensional activity where most schemes are visually represented in plan view; not model, sectional or elevation view. Andrew. (2013) argues that the essential difference between urban planning and urban design is that urban planning makes provision for known spatial arrangements of known forms (land use, transport, open space, infrastructure) that are reliant upon the effects (outputs) of known forms of exchange (particular industries, e.g. property development, housing, infrastructure, social and government services); while urban design visualises spatial arrangements (e.g. 'village hearts', 'green lungs', quay-sides, urban boulevards, housing typologies, single-loaded dwellings), the realisation of which are reliant upon the effects (outputs) of the very same known forms of exchange. Alliance Design International (2014)describes urban design as the design of functionality for spaces between buildings and structures; whereas urban planning is the means for design and organisation of urban spaces and infrastructure. Furthermore, urban design is the treatment of space in a three dimensional way; whilst urban planning treats space in a two dimensional fashion.

The above discussions explain that urban design is distinct from urban planning and, accordingly, the researcher has presented the findings of the above discussion as a summary in table 2.1 below:

Table.2.1-Distinction between urban design & urban planning

Urban Design	**Urban Planning**
Plans and designs streets, parks, transit stops on different scales such as at regional level, local level but does not plan overall scheme	Plans for larger regions, towns and villages as a whole
Orients designs for aesthetics as well as for functionality	Usually plans a utility
The treatment of space in urban design is three-dimensional, where vertical elements are as important as horizontal elements.	Urban planning is customarily a two-dimensional activity where the majority of plans are visually represented from a two dimensional view; not model, sectional, or elevation.
More design and action oriented	More policy oriented
Urban design thinks about functionality - designs try to create houses as homes by mixing communities, using active frontages, etc.	Focus on land use rather than functionality (ex-planning identifies location for housing)
Urban design use visualisation	Deals with known context
Make action oriented strategies	Make space oriented strategies

2.3.2.1-How does this research focus particularly on urban design and not urban planning?

This research concentrates on urban design rather than urban planning in many aspects. Firstly, the literature explored in this research is particularly focussed on urban design, its development, its seminal work and the current issues relating to urban design. The literature does not necessary explore the deeper issues of urban planning, which are related to human settlement, development and policy planning. As Carmona et al. (2010) state urban design is not particularly concerned with matters such as settlement development. Furthermore, the literature assesses, in depth, the current scope of urban design which is about creating

sustainable urban places (place making), and how this has evolved from its original scope of city beautification. The literature then assesses specifically the current urban design process and its implications for the current scope of urban design. The urban planning process is more complex and concerned about land use and land use development rather than its functionality and place making as stated by the American Planning Association (2012).

Thereafter, the case studies in question show how to plan and design streets, parks, neighbourhood centres which are related to public realm development and place making further focusing on building an image of the place. This part of the scheme is an action project within a major development plan, but is not engaged with the whole of the area under development. As Carmona et al. (2010) and American Planning Association (2012) state that urban design provides action oriented projects as part of a project but does not plan 'wholes' or policies in the way urban planning does. Furthermore, the projects in the case studies seek to create functionality in spaces, such as, planning and designing the spaces in between houses and streets rather than organising urban spaces and infrastructure. Alliance Design International (2014) describes urban design as the design of functionality of spaces and between buildings and structures whereas urban planning designs and organises urban spaces and infrastructure.

Accordingly, based on the nature and scope of the study, the researcher can justify that this research is predominantly about urban design and not a study into urban planning. However, as Greed and Roberts (2014) describe defining urban design is still controversial, therefore, even though this study focuses on urban design some features and aspects which mainly belong to urban planning may also have to be discussed and considered in this study.

2.4- INFLUENCIAL SEMINAL WORK ON THE DEVELOPMENT OF THE SCOPE OF URBAN DESIGN

This section critically evaluates some of the influential literature on urban design which has contributed to the development of the scope of urban design. As justified in the section 1.2, the focus of this research is to develop a new urban design process framework to achieve the current scope of urban design. The current scope of urban design indicates the need for achieving sustainability, which is sustainability on all three fronts; social, economic and environmental sustainability. The current urban design process is mainly top-down and it

has often failed to capture locally significant factors in order to deliver unique urban design solutions for the particular urban context. This top-down nature has resulted that urban design solutions are not ground oriented, therefore, does not achieve sustainability in its all three fronts. Accordingly, it has been widely recognised to replace the current top-down urban design process (see section 2.5). Therefore, in order to develop a new urban design process framework, it is particularly important to have an in-depth understanding of the scope of urban design and how the scope of urban design gradually developed from its origins. Accordingly throughout this section, a wealth of influential literature has been critically evaluated under different sub headings.

2.4.1- JANE JACOBS: LIFE OF CITIES, SIDEWALKS & STREETS

One of the seminal works in the development of urban planning and design is the work of Jane Jacobs. Larice and Macdonald (2007) state that the book 'Death and Life of Great American Cities' by Jacobs (published in 1961) shocked the world of city planning and rebuilding methods at that time and even affected the concepts and theories taught in university planning programmes. Jacobs learned about cities by close observation and developed her theories by inductive analysis.

Jacobs' (Jacobs, 1961) argument begins by stating that

> *"it is necessary to find out how cities work in real life, as it is the only way to learn what principles of planning and what principles of rebuilding can promote social and economic vitality in cities, and what practices and principles will deaden these attributes". (Jacobs, 1961:13)*

As stated by Laurence (2006), Jacobs' intention was to identify the relationship between the built environment and social and economic life associated with it. Planning and designing work which were conducted without understanding the unique features of the particular urban context were criticised by Jacobs. As discovered by Laurence (2006) critics of Jacobs have provided the foundation for the concept of 'place making' in modern urban design.

Jacobs (1961) identified cities as living organisms in which streets are the 'lifeblood'. Accordingly, she analysed the use of sidewalks in streets from different aspects. Identifying a city as a living organism was a remarkable step by Jacobs in the 1960s as, at that time, the built and natural environment and those who inhabit the space were identified as three

separate elements and there was little interest in seeing these as integrated elements. Her findings are still applicable today as, in the current context, there are many findings about the importance of identifying cities as living organisms in order to achieve sustainable development. Some of the seminal examples of this are the work of Farr (2012) on sustainable urbanism, urban design with nature and Bill (2010) on regenerative design.

In order to ensure streets are the 'life blood' of cities Jacobs (1961) examined the uses of sidewalks from three different aspects; sidewalks as a means for safety, as a means for contact and as a means for assimilating children.

2.4.1.1- Sidewalks and Safety

The identification of sidewalks as a means to create safety in a city is one of the findings of Jacobs. She pioneered the notion that' a well-used city street is apt to be a safe street and a deserted street is apt to be unsafe' which has become a common theme in urban design literature. Jacobs identified that a successful city neighbourhood should always have three main qualities and these three qualities increase the safety of the area:

- A clear demarcation between public and private spaces
- Eyes should be open to the streets
- Sidewalks must maintain continuity

Today, in the current context of urban design, much concentration has been given to creating active frontages. Walton et al. (2007) state that active frontages are one of the keys to creating a public realm and a public realm is linked with creating sustainable communities; this links with the Jacobs' second quality for a successful street which is 'eyes should be open to the streets'. Also Jacobs' idea about the continuity of sidewalks has also been discussed in many influential works on urban design, for example, in the principles of the New Urbanism Group (2012). The new urbanism concept of the connectivity of streets has been identified as one of the successful factors in creating a sustainable neighbourhood. Also, in recent years, Farr (2012) describes the components of sustainable urbanism and, under the heading of smart growth principles, Farr (2012) states that walkable neighbourhoods provide the platform for social sustainability.

To achieve the three qualities described above Jacobs identifies three requisites for a street:

- A substantial quantity of stores (shops) and other public places distributed along the sidewalks (pavements)

- Having sidewalks (pavements) with no specific attractions other than as routes to another place
- Having stores (shops) and small businesses located along the sidewalks (pavements) where the inhabitants (ex- small businessman) are aware of the surroundings

Furthermore, by introducing such requisite into streets, Jacobs was reacting to the problems created by the zonal planning of the 1930's and 40's in the USA which separated dwellings from industry and commerce and which relied on motor transportation. Her ideas were drawn from the negative effect she perceived that this had on city life; therefore she suggested the mix use of spaces and sidewalks.

Jacobs' identification of these requisites again proves the contribution she has made towards the development of the foundations of urban design as it stands today and of her broad knowledge and understanding of cities. Today, in urban design, there are wide discussions on the multifunctional neighbourhood as one of the components to achieving sustainable development. According to (McGlynn, Smith, Alcock, & Murrain, 1985) this is called 'variety' which assists in creating a responsive urban environment. Also, as per the findings of Walton et al. (2007), in the Urban Design Compendium Volume 2, mixed use and form is one of the key principles for urban design. The New Urbanism Group (2012) also identifies mixed use and diversity as one of the success factors in sustainable urban development. These concepts and ideas strengthen the vision that Jacobs perceived in the middle of the twentieth century. Jacobs identified the above qualities for sidewalks as a means of delivering safety in a city. But in the current context these qualities play a vital role beyond merely providing safety in a city. As Walton et al. (2007) identify, mixed use and form does not just create safety within cities; it stimulates enjoyable and convenient places and makes the widest possible range of demands from the widest possible range of users, amenities and social groups. Thus, this indicates, that even though Jacobs identified these qualities as a means for creating safety, these qualities play a wider role in creating social and economic sustainability.

In summary it can be noted that the work of Jacobs has had a huge influence on the development of the scope of urban design and has greatly supported the introduction of urban design as a profession; working towards place making rather than merely working for city beautification.

2.4.2-KEVIN LYNCH AND URBAN DESIGN

Kevin Lynch's work on cities is an important influential contribution made to the field of urban planning and design. In the last fifty years many architects, designers and planners have been influenced by Lynch's work on cities. As Pearce and Fagence (1996) state, Lynch's work has been cited more than 500 times during the period between1976-1993.

Lynch has discussed many aspects of planning and design in his scholarly work and among these discussions his book on the image of the city (1960) provides an analytical framework to assess people's perceptions of a city. His book '*What Time is This Place?*' (1972) presents an overview of how to conserve and present the time/historical elements of an environment in order to enhance user experience and his theory of good city form (1981) develops ideas on how to communicate this in planning.

Lynch (1960) presented an analytical framework to support perceptions on how city areas could be assessed and planned. It was Lynch's intention to determine whether users of the urban environment had a coherent perception and image of that environment, and then to identify what urban designers should do to maintain that empathy between the environment and its users. Accordingly, Lynch devised a simple framework of five elements as follows:

- Paths (the lines of movement)
- Nodes (focal points of concentrated public activity)
- Landmarks (significant points of reference)
- Districts (composite areas of activity)
- Edges (the margins of districts).

Lynch states that a combination of these elements creates the individuality and distinctive image of any area in an urban development. But as Banerjee and Southworth (1990) have stated, Lynch was disappointed that this method achieved less widespread use in policy development than he had hoped.

Lynch's work on the environmental image of cities provides a framework for urban designers to understand how people perceive a city and how to design elements to make the place distinctive. His study was based on observations of two cities and one state in America which were Boston, Los Angeles and New Jersey (state).

A criticism which can be made concerning Lynch's work is its global applicability, i.e., whether designers all around the world can use these five elements to give a distinctive image to a city? As Norberg-Schulz (1976) states each and every place is unique, it has its own distinctive features, therefore each and every place should be identified as a new component rather than analysing or perceiving them with a pre-defined identity. Therefore, there can be more elements which contribute to provide an environmental image for the city other than Lynch's five elements. However, Lynch's work on environmental perception provides designers with a fundamental framework to analyse or perceive urban environments. As Larice and Macdonald (2007) have stated, Kevin Lynch's image of the city has a profound influence on how designers perceive cities and urban form.

As Ford (1999) states, Lynch's work on environmental image and peoples' perception of that image provides a criticism of those cities which are not readable by people. Lynch has provided a framework for designers to allow them to think about how they should design cities that people can identify with, perceive, understand and appreciate.

Lynch's work is more focused on the perception of cities by people rather than on identifying cities as places where it is possible to create sustainable environments in terms of the cities' triple bottom line, social economic and environmental aspects. The reason for this may be the context upon which Lynch's work was focused. Lynch's study on the image of the city was undertaken at a time when the scope of urban design was just city beautification and also at a time when planners and architects were struggling to define the objectives of urban design. As Lang (1994) points out, in the late 1960s urban design was associated with the American City Beautiful Movement of the nineteenth century which dealt primarily with major municipal buildings and civic quarters, city halls, opera houses and museums and their relationships to streets, boulevards and other open spaces.

However, using Lynch's approach to identify the elements of city perception is interesting and applicable in today's context of urban design. As Lynch (1960) explains, in order to examine cities from the perception of people he conducted lengthy interviews with selected residents from the city with which he was concerned, and in addition, he interviewed people who commuted to the area and people who worked in the city. Lynch's approach is mainly bottom-up as he started the study by focusing on people who actually utilized the area rather than by starting his study based on professional actors. Ratti and Townsend (2011) state that planners and designers can start work with society rather than relying on other factors. Thus,

in discovering the elements for the image of a city, Lynch began the urban analysis process by focussing on people. The approach Lynch used is remarkable as, at that time, there was no design or planning theory which emphasised participation in planning and design.

Lynch's contribution to urban planning and design is immense and he generated new knowledge for the profession. His second most influential work "*What Time is this Place?*" (Lynch, 1972) is more prescriptive than descriptive, more speculative than analytical and is aimed more at doers than at observers. In this work Lynch's focus is on the 'identity' of the place in respect of the past, present and the future. As Lofland (1974) states, Lynch's intention was to give designers insights into a city's past and to link the past with the new development plans where appropriate. Ford (1999) states, that according to Lynch, a good place is one that not only tells us where we are (in time), but where we have been and where we are going and at what speed. A good city has depth and meaningful temporal layers. There are clues as to how things change over time on many scales; seasonal colours, old buildings and even roosters crowing at the crack of dawn can provide us with pleasant, non-intrusive celebrations of the passage of time.

Lynch's attempt to identify cities as a combination of past and present can be recognised as one of the most remarkable works as at that the influence of the past for the current state of cities was not considered as an important factor.The London Docklands Development Corporation (1998) described the city regeneration approach in second half of the 20th century as 'a clean sheet approach' which ignored any reference to context or continuity and tried to impose alien development on an area.

Hayden (1995) was probably inspired by Lynch and he states that place memory is the main key to the power of historical places in helping inhabitants to identify with their common history. Places activate recollections for insiders who have shared a common past and, at the same time, places can often symbolise shared pasts to outsiders who might be concerned in knowing about them in the present. Place memory is the tool which brings people together and assists in providing them with an identity and, in those areas where this is clearly evident, it can be argued that it provides a strong economic contributor through tourism.

Lynch's findings on place identity very much links in with the scope of urban design today; today urban design is seeking to deliver high quality places using three dimensional scopes which are social, economic and environmental development (Larice & Macdonald, 2013) .

Therefore, to design a place that is socially, economically and environmentally viable, designers should think about the history of a place in order to understand its roots. Reed (2007b) describes introducing regenerative design concepts; they are vital in identifying the history of a place in order to diagnose the place and also to identify its roots. Regenerative design is one of the latest concepts in urban development and it focuses on creating a sustainable environment based on a bottom-up approach. This indicates that Lynch was being proactive by identifying the requirements of a good city in the second half of the 20th century.

The final work by Lynch that can be considered is '*A Theory of Good City Form*' first published in 1981. Lynch (1984) offers five "dimensions of performance": categorised as follows:

- Vitality - the degree to which environments provide healthy and life-enhancing settings.
- Sense – a sense of place which relates mostly to the identity of the place.
- Fit - how well urban environments fit the human body and human activities.
- Access - proper accessibility to cities and their neighbourhoods.
- Control – the control over the cities which is held by communities.

These five contrasting and overlapping dimensions of a city are explained in a generic manner and, therefore, as Ford (1999) states it is a little difficult to measure them separately and they may be in conflict one with another. They do, however, provide a context for discussions on the spatial, physical, social, and political organisation of various types of developments.

These dimensions provide rich components for the urban design field to apply and have been mostly used in the last years of the 20th century, and are still, in the new millennium, the principles of New Urbanism (Katz, Scully, & Bressi, 1994) and Urban Design Compendium (Larice & Macdonald, 2007) discuss the five dimensions of a city which Lynch introduced. The only difference is that they have used different terminology to that used by Lynch but the ideology is more or less the same. These concepts have contributed widely to developing the scope of urban design today, which is about creating sustainable urban environments.

2.4.3- THE PHENOMENON OF PLACE AND THE GENIUS LOCI (CHRISTIAN NORBERG-SCHULZ)

Norberg-Schulz (1976)'s work is based on phenomenlogy. As Larice and Macdonald (2007) state, Schulz's work has provided various positive impacts in the field of design and on environmental phenomenology. Schulz introduced a theoretical basic design which has become known as "contextualism" and renewed design interests in materiality, texture, sensory experience and the poetics of design.

According to Norberg-Schulz (1976), our everyday life consists of concrete phenomena such as buildings, people, trees etc. He explains that life also consists of intangible phenomena such as feelings. Thus, places can be described as having concrete phenomena as well as intangible phenomena. The feelings and sensations we receive from place are intangible but are given through tangible objects. Thus, Schulz states that we should create sensational experience and existence through tangible characters. The basic properties of man-made places, according to Schulz, are concentration and enclosure. They give the feeling of 'gathering' and of being 'inside'. The phenomena that Schulz describes, reminds one of the contemporaneous work of Lynch on the environmental image and perception of cities. As has been discussed in 2.4.2, Lynch's work on the image of the city is more focused on giving insights into 'how to create cities which can be remembered in minds by using the five elements nodes, paths, edges, landmarks and districts' and Schulz's work provides the theoretical basis to analyse cities and to understand that cities are not merely an outcome of physical structures. Therefore, the combination of Lynch's & Schulz's work delivers a strong outcome in urban design analysis when solving matters of 'what to do?' and 'how to do?' in creating perceived and understandable cities.

The most interesting work of Norberg-Schulz (1980) is on the concept of 'Genius Loci' where he introduces and undertakes a rich discussion on the uniqueness of place. Schulz's concept of the Genius Loci was re-discovered from the classical Roman religious concepts where the Genius Loci was the protective spirit of a place. Thus, he argues, that each and every place has a unique spirit and, therefore, the best proposition in city development is to understand the Genius Loci of the place. He further argues that if the spirit of a particular place is destroyed then it affects the continuity of the place and sooner or later it will lead to decline.

Schulz's work on the Genius Loci provides a clear indication that in regenerating or redesigning urban environments it is vital to look into the context of a place. This links in with many current and past works on urban design. Lynch's work on place identity relates well with Schulz's work on the Genius Loci whereby both authors believe that each place has its own identity or uniqueness and, therefore, this unique character should be identified and maintained in city development in order to ensure the sustainability and the continuity of an area.

Even though these works are more than 30-35 years old, their relevance means that they are still applicable to urban design and city development today. At the present time sustainable development is linked with city development and design whereby designers seek to develop impressive places which are sustainable economically, socially and environmentally (Curwell, Deakin, & Symes, 2007) . Therefore, to create sustainability at its triple bottom line, it is necessary to analyse and understand complex urban environments in depth. A deep understanding of an urban environment drives a designer to understand the unique character of an urban entity and to design accordingly to replicate the uniqueness of the place. This was a key finding from the work of both renowned authors, Schulz and Lynch, and continues in current usage. For example, concepts such as sustainable urbanism with nature (Farr, 2012), Regenerative Design (The Regenis Group, 2011) present the importance of identifying the roots and the unique character of a place as a prerequisite to the creation of sustainable urban environments.

In summary it can be noted; Schulz's work has been mainly supported by Lynch's work and Schulz's work on the 'Genius Loci' has provided a strong foundation for the development of the urban design concept 'look into the context of place' to create sustainable urban environments.

2.4.4- SERIAL VISION - THE CONCISE TOWNSCAPE & GORDON CULLEN

Gordon Cullen was an influential English architect and urban designer who was a key motivator in the Townscape Movement. Cullen's work on Townscape studies was first published in 1961 and several editions have followed. Cullen (1971) states that people perceive urban environments through their sense of sight and its emotional impact. Cullen's work is based on how people comprehend meaning in urban environments through kinaesthetic experience in everyday life and he presents his discovery of humanistic urban design in three "gateways": Motion (Serial Vision), Position (Here and There), and Content

(This and That). Cullen argues that cities should be designed from the perspective of a moving object because cities are perceived as a series of revelations. Furthermore, Cullen describes a sense of place and to provide a sense of place he introduces the townscape element which should be designed to maintain the continuity of its elements.

However, as in Lynch's image of the city, Cullen has put place great emphasis on identifying the perception of a city rather than on identifying the city as a place to generate wealth socially and economically. This is confirmed by Larice and Macdonald (2007) who state that the direct relationship between Cullen's work and Lynch's work is that both of them were interested in how people perceive urban environments through their sense of sight. The difference between the two authors was that Lynch was interested in legibility and Cullen was interested in the emotional impact. However, in general, this proves that Cullen's work focuses more on the physical aspects of urban design and planning rather than considering the three dimensions of life which are considered within the current scope of urban design today. But, without argument, the contribution of Cullen's work on townscapes is still remarkable as it provides a better understanding for planners and designers about the creation of continuity in townscapes through serial vision. Chengzhi (2003) states that Cullen's work on townscapes is an important piece of work which sets out an experiential approach as to how a living city environment should be read and understood and it helps student designers to conduct visual analyses and design development.

Cullen's concepts and visual analysis of townscapes can be enhanced via the computer aided visual developments of today. Gosling (1994) states that Cullen's serial vision can be seen as prophetic for present-day computer aided design. Generally, in today's virtual city designs an animated object is moved through the virtual environment at a uniform speed in order to understand and perceive the urban environment before it exists in reality. Chengzhi (2003) believes that an even stronger link could be made between townscapes and the recent developments on virtual cities which provides not only animation but also user-centred navigation. Furthermore, his team has conducted an initial study into how a virtual city system might be applied in a Cullenian manner to provoke urban design thinking which results in the reconstruction of urban contexts for analytical studies. This indicates that Cullen's work is still viable in analysing the urban environment in relation to the physical and aesthetic aspects of urban design.

2.4.5- RESPONSIVE ENVIRONMENTS

The book '*Responsive Environments*' by McGlynn et al. (1985) is one of the seminal books about urban design. This book, rather that discussing theories and concepts, acts as a practical manual for urban designers. The book emphasises that the built environment should provide its users with an essentially democratic setting which should enrich their opportunities by maximising the degree of choice available to them and such places are introduced as responsive places. They introduce seven key components that are needed to create responsive environments in urban design. Figure 2.1 illustrates the components needed to create responsive environments.

In fact the book '*Responsive Environments*' is essentially a representation of Lynch's work on the environmental image of cities. In responsive environments Lynch's five elements; paths, edges, landmarks, district and nodes, have been identified as elements that create a legible environment and as one of the success factors for responsive environments. The superlative aspect of 'responsive environments' is that it consolidates and summarises Lynch's seminal work into one success factor, alongside six other success factors, in urban design for the provision of a responsive environment.

Variety and robustness are two success factors required for a responsive environment and which describe the multiple usages of places. These factors are interlinked with many of the novel concepts of urban design. Walton et al. (2007) compiled the Urban Design Compendium, a very useful book for urban planners and designers, for the UK Government. One of the urban design principles introduced in the compendium is 'mixed use' by which a high quality place should have enjoyable and convenient places meeting a variety of demands from the widest possible range of users, amenities and social groups. Similarly, in the book '*Responsive Environments*', the authors have identified this factor using the terms variety and robustness and, again, it blends the existence and applicability of similar knowledge in today's context. The factor referred to as permeability for a responsive environment describes accessibility to a place both physically and visually; appropriate accessibility creates good places. In fact, today, pedestrianisation and access for the disabled people have become critical factors in creating good places. The importance of pedestrianisation and access for disabled people and its relationship to creating good places has been discussed and widely agreed upon in many urban design forums, concepts, theories etc., for example, in the work by Walton et al. (2007)'s, Urban Design Compendium for Sustainable Communities, and in Farr (2012)'s Sustainable Development: Urban Design

with Nature, etc. The other key factor for a responsive environment are richness and personalisation. This is linked with the work of Lynch and Cullen as it relates to the environmental and emotional perception of cities. Cullen's idea of 'here and there' is linked with 'personalisation'; people perceive 'here' when they personalise their environment and 'there' becomes the place which is outside an individual's personalised environment.

When one critically assesses the work in this urban design practical hand book, the book can be seen as an admirable piece of work. It stands alone as a publication which summarises the work of two authors into seven success factors that create responsive environments through urban design. Furthermore, as shown above, the seven factors introduced in this book have made a particular contribution to the development of the current scope of urban design.

Figure 2-1- Seven key components necessary for creating responsive environments

- Permeability

Only places which are accessible to people can offer them choice. The number of alternative ways through an environment is central to creating responsive places. For this both physical and visual permeability is necessary.

- Variety

There must be a variety of users in a place, for example, offices, housing and workshops etc. Rather than just concentrating on one type of land use

- Legibility

How easily people can understand the layout of the space.

- Robustness

Ability to use the same locality for different purposes

- Visual Appropriateness

Covers decisions made about general appearance, eg, on how a place should look.

- Richness

Apart from appearance places should give a sense- experience which users can enjoy. This additional level of choice is called richness

- Personalisation

Putting people's own stamp on places is personalisation; places which have personalised designs are more responsive

2.4.6- NEW URBANISM

New Urbanism was the most influential urban design movement in the late 1990s. New Urbanism promotes walkable neighbourhoods containing a range of housing and job types. Katz et al. (1994) state that 'New Urbanism' is the movement that seeks to bring back the basic amenities that make communities work, such as culturally diverse housing, easy access to work, play areas and schools, and efficient transportation. As Katz et al. (1994) state, new urbanism addresses many of the crucial issues in today's context such as the decline of American cities, the rebuilding of crumbling infrastructure, housing affordability, crime and traffic congestion. This design approach suggests bold alternatives to the sprawl and isolation that they view as being a consequence of the past five decades of poorly planned suburban growth. The designs of new urbanism integrate housing, shops, workplaces, parks and civil facilities into close-knit communities that are both charming and functional. Walkability is key, but cars are not excluded. In this concept public places lie at the heart of these designs which set aside their most valued sites for parks, schools, churches, meeting halls and other civic uses. Affordability is also an important consideration. New urbanism advocates an ambitious yet pragmatic agenda for the building, and rebuilding, of neighbourhoods, towns and cities. In summary, the concept of 'New Urbanism' seeks to provide an answer to the negative aspects of urban sprawl and encourages sustainable neighbourhoods as a place-making strategy. The principles of 'New Urbanism' can be summarised as follows:

Table 2.2-Principapls of new urbanism adopted from New Urbanism Group (2015)

Principal	**Sub features under each principal**
1.Walkability	• Most elements within a 10-minute walk of home and work • Pedestrian friendly street design (buildings close to street; porches, windows & doors; tree-lined streets; on street parking; hidden parking lots; garages in rear lanes; narrow, low speed streets) • Pedestrian streets free of cars in special cases
2. Connectivity	• Interconnected street grid networks disperse traffic and ease walking • A hierarchy of narrow streets, boulevards, and alleys • High quality pedestrian networks and public spaces makes walking pleasurable
3. Mixed-Use & Diversity	• A mix of shops, offices, apartments, and homes on site. Mixed-use within neighbourhoods, within blocks and within buildings • Diversity of people - of ages, income levels, cultures, and races
4. Mixed Housing	• A range of types, sizes and prices in closer proximity
5.Quality Architecture & Urban Design	• Emphasis on beauty, aesthetics, human comfort and creating a sense of place; Special placement for civic uses and sites within the community. Human scale architecture and beautiful surroundings nourish the human spirit
6.Traditional Neighbourhood Structure	• Discernable centre and edge • Public space at centre • Importance of the quality public spaces; public open spaces designed as civic art • Contains a range of uses and densities within a 10-minute walk • Transect planning: Highest densities at town centre; progressively less dense towards the edge.

7.Increased Density	• More buildings, residences, shops, and services closer together for ease of walking, to enable a more efficient use of services and resources and to create a more convenient, enjoyable place in which to live. • New Urbanism design principles are applied at the full range of densities from small towns to large cities
8.Green Transportation	• A network of high-quality trains connecting cities, towns, and neighbourhoods together • Pedestrian-friendly design that encourages a greater use of bicycles, rollerblades, scooters, and walking as daily transportation
9. Sustainability	• Minimal environmental impact of development and its operations • Eco-friendly technologies, respect for ecology and value of natural systems • Energy efficiency • Less use of finite fuels • More local production • More walking, less driving
10.Quality of life	Taken together these add up to a high quality of life well worth living, and create places that enrich, uplift and inspire the human spirit.

Song and Knaap (2003) have conducted an interesting research into evaluating the virtues of new urbanism in relation to housing values with quantitative measurements using GIS. The research work was based in Washington County, Oregon, USA and the findings show there are significant differences between traditional urbanised neighbourhoods and new urbanism and this has capitalised in residential property values. The neighbourhoods where new urbanism characteristics are encompassed have much higher residential property values than the traditional neighbourhoods. The researchers found that residents are willing to pay a premium for houses in neighbourhoods that have more connective street networks; more streets; fewer dead-end streets; more and smaller blocks; better pedestrian access to commercial venues; more evenly distributed mixed land use in the neighbourhood and

proximity to light rail stations. In contrast houses in neighbourhoods that are dense, contain more commercial, multi-family and public uses (relative to single-family uses) and which contain major transportation arteries command lower prices. Based on these findings, Song and Knaap (2003), show that homes in new urbanist neighbourhoods command an aggregate price premium.

The study of Song and Knaap (2003) points out that the neighbourhoods proposed by the new urbanist are mostly accepted and preferred by society when comparing housing. However, it is not possible to generalise this point based on this study; but it does show that people like to live in a place where there is a traditional neighbourhood structure, with more non-vehicular usage and more internal pedestrian connectivity. As a whole, new urbanism stands alone as an extremely innovative movement when one looks at the contribution it has made to the field of urban design. Until the introduction of the new urbanism concept in the 1980s the scope of urban design was limited to the physical elements of cities, that is, their aesthetic aspect and the creation of city beautification (Congress for the New Urbanism, 2015). Even though authors like Jacobs (1961) have tried to expand the scope to cover the social dimension, until the strong influence of new urbanism came along planners and designers were reluctant to broaden the scope of urban design to address these factors. As Lang (1994) states, the scope of urban design was limited to city beautification when it emerged as a profession in the 1960s. Additionally, the concept of new urbanism and the smart growth theory (referred to in the UK as the compact city) have a strong relationship; as Kushner (2002) describes the main difference between the two concepts as; smart growth envisions land use and a reduction in the sub-division of land in suburban areas whilst new urbanism more concentrates on a pedestrian oriented lifestyle. The backbone for both concepts is a walkable neighbourhood.

Even though new urbanism stands as a very influential piece of work there are some criticisms of this movement. One of the strongest criticisms is that new urbanism is not practical for managing growth. Ellis (2002) stated that many theorists argue that city growth cannot be stopped just because a compact townscape structure has been employed for cities are growing all the time. Therefore, the argument is that even though a city is designed on a traditional neighbourhood structure, in the long term the city grows and expands and it follows the general structure of urban sprawl. This argument has its own values but as Carmona et al. (2010) state a city's growth is controlled through sets of rules and regulations. Most countries have their own national policy guidelines to which local development plans

should adhere; therefore, since the planners and designers are governed by such regulations the issue of growth can be managed by the application of regulations. Thus, the legal and policy frameworks which govern cities can be used to control urban sprawl, if desired, and therefore this makes this argument invalid.

There is much evidence which shows that the scale of street design within districts and neighbourhoods and the street patterns and land-use mixtures introduced by the new urbanism can offer many advantages. As Kulash (1990) argues, traditional neighbourhood developments (as used in new urbanism) perform better than the sparse branched pattern of suburbia and also their traffic systems increase the quality of travel in terms of time. McNally & Ryan (1995) and Morris & Kaufman (1988) have discovered that new urbanist designs can improve the performance of a place through interconnected pathways for the pedestrians.

The principles of new urbanism have been adopted by many new urban design practioners. In 2009 Ritchie and Thomas (2009)published the second edition of "*Sustainable Urban Design: an Environmental Approach*" and introduced the idea of the sustainable urban structure. The authors state that, at the level of a town or a city, the walkable community or urban village provides a fundamental building-block in the creation of a sustainable urban form. Thus, the authors have introduced the idea of a walkable community which is influenced by the characteristics of new urbanism. This indicates that work put forward in the late 1980s is still valid and being adopted in the 21st century even though cities today face different challenges than those at the end of the last century. In particular rapid technological development and advanced communication systems allow people to remain at home and access many of their needs through the internet. For example, today people can order online not only items for their basic needs but also anything which fulfils their secondary and other needs such as televisions or even vehicles etc. Dixon and Marston (2002) point out even though E-commerce will not mean the death of the retail 'high street' in the United Kingdom, it will threaten some 'high street' businesses particularly financial services and travel. This is a serious issue that professional actors need to investigate in order to maintain the 'liveability' of our cities. Identifying this challenge to be one of the bases for sustainable development, Farr (2012), wrote '*Sustainable Urbanism: Urban Design with Nature*' as a novel approach to restoring the 'liveability' of neighbourhoods wherein he adopts the principles of new urbanism and smart growth alongside green design (a concept that will be discussed in detail in a later section). This usage indicates the applicability of

the new urbanism concept in order to address the urban design issues of today and how the principals of new urbanism have positively affected the scope of urban design.

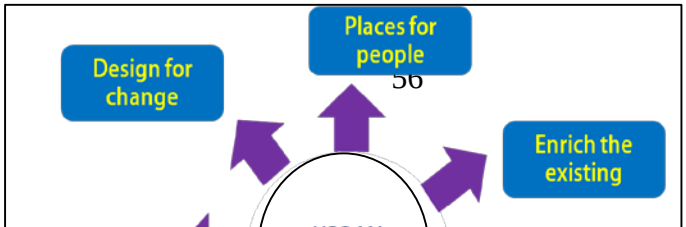
Another criticism of new urbanism is that its concept does not match with today's modern life. As Ellis (2002) states that critics frequently argue that new urbanism ignores the social and economic realities of the modern world. According to this view, the automobile, cheap energy, computers, telecommunications, new building technologies, multi-national corporations, and globalised trading spheres have rendered the city-building practices of the past irrelevant. People have become irreversibly mobile, footloose and individualistic. They prefer privacy over community, spatial separation over contiguity, convenience over craftsmanship and dispersed social networks over traditional neighbourhoods. In short, the very constitution of 'urban space' has changed. In brief, according to Sudjic (1992) "new urbanism is good for a Mediterranean fishing village but not for today's increasingly solitary, fractured and private way of life".

Even though some authors criticised the principles of new urbanism many concepts developed later adopted features of new urbanism; for example the work of Farr (2012) on sustainable urbanism and Ritchie and Thomas (2013) on sustainable urban design and the contribution it has made to the development of the scope of urban design is enormous.

2.4.7- URBAN DESIGN COMPENDIUM UK

Llewelyn Davies Yeang and Alan Baxter and Associates (2000) & Walton et al. (2007) compiled the Urban Design Compendium 01 and 02, very useful books for urban planners and designers working for the UK Government, as part of a policy drive to improve the quality of urban design and new developments in the UK. The Urban Design Compendium 01 and 02 state that good urban design is essential in order to deliver places which are sustainable on all counts, places that create social, environmental and economic value. Furthermore, it states that well-designed places should be the priority of everyone involved in shaping and maintaining the built environment. The Urban Design Compendium 01 identifies the following key principles of urban design:

Figure 2-2- Key Principles of Urban Design, Adopted from Urban Design Compendium,(Llewelyn Davies Yeang in association & Alan Baxter and Associates, 2000)



These are further elaborated in the following table:

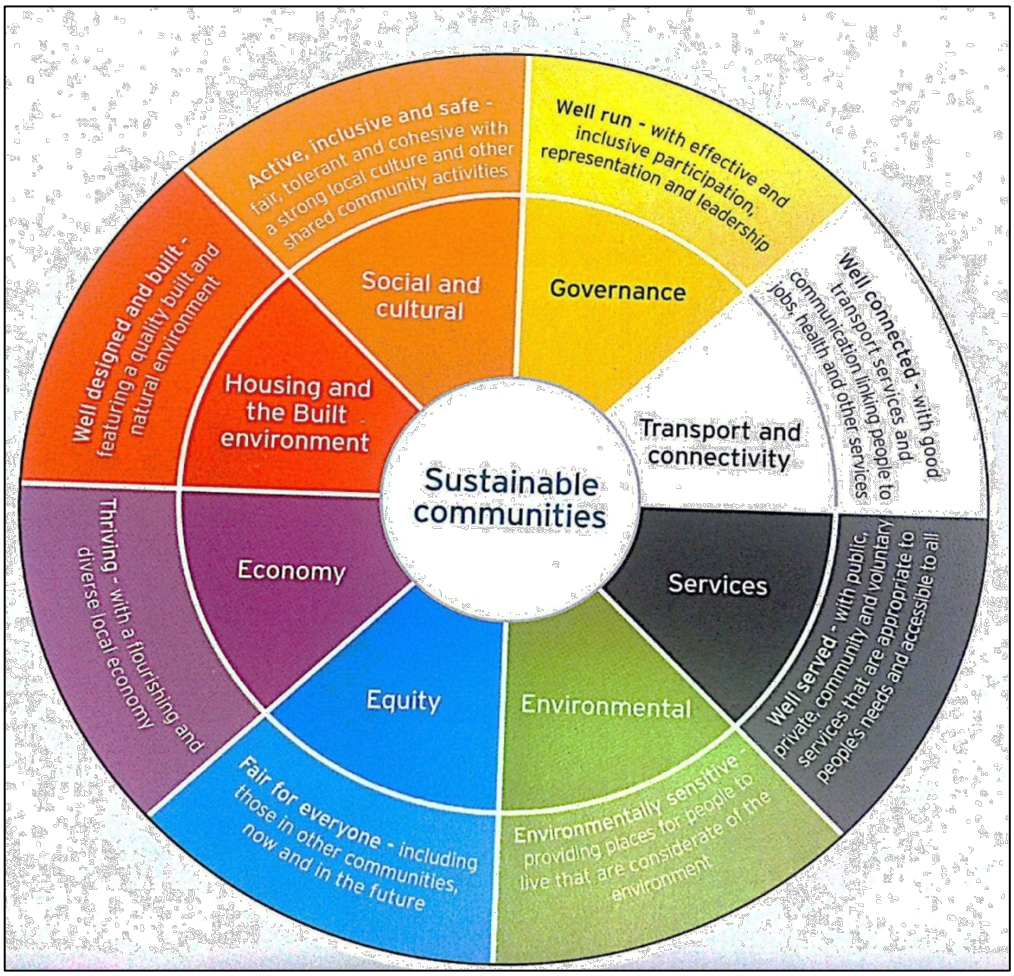
Table.2.3- Principles of Urban Design, Adopted from Urban Design Compendium (Llewelyn Davies Yeang and Alan Baxter and Associates, 2000:12*)*

Places for people
For places to be well-used and well-loved, the must be safe, comfortable, varied and attractive. They also need to be distinctive, and offer variety, choice and fun. Vibrant places offer opportunities for meeting people, playing in the street and watching the world go by.
Enrich the Existing
New development should enrich the qualities of existing urban places. This means encouraging a distinctive response that arises from and complements its setting. This applies at every scale- the region, the city, the town, the neighbourhood, and the street.
Make Connections
Places need to be easy to get to and be integrated physically and visually with their surroundings. This requires attention to how to get around by foot, bicycle, public transport and the car – and in that order.
Work with the Landscape
Places that strike a balance between the natural and manmade environment and utilise each site's intrinsic resources- the climate, landform, landscape and ecology- to maximise energy conservation and amenity.
Mix Uses and Forms
Stimulating, enjoyable and convenient places meet a variety of demands from the widest possible range of users, amenities and social groups. They also weave together different building forms, uses, tenures and densities.
Manage the Investments
For projects to be developable and well cared for they must be economically viable, well managed and maintained. This means understanding the market considerations of developers, ensuring long term commitment from the community and the local authority, defining appropriate delivery mechanism and seeing this as part of the design process.
Design for Change
New development needs to be flexible enough to respond to future changes in use, lifestyle and demography. This means designing for energy and resource efficiency; creating flexibility in the use of property, public spaces and the service infrastructure and introducing new approaches to transportation, traffic management and parking.

As introduced by Llewelyn Davies Yeang and Alan Baxter and Associates (2000) & Walton et al. (2007), both versions of the urban design compendium help designers to create sustainable urban designs that is fully focused on the UK context.

Furthermore, the second version of the urban design compendium (Walton et al., 2007) also reveals the findings of the EGAN report. The Egan Report, entitled 'Rethinking Construction', was an influential report about the UK construction industry produced by an industry task force chaired by Sir John Egan and published in November 1998. A key finding by Egan (2004) is that sustainable communities do not occur by chance the professionals should work to achieve sustainable communities. Egan's report reviews the skills and training needed by environmental professionals to deliver sustainable communities. His report introduces the key components of sustainable communities and is represented in figure 2.3.

Figure 2-3- EGEN Wheel, Source Urban Design Compendium 2, (Walton et al., 2007)



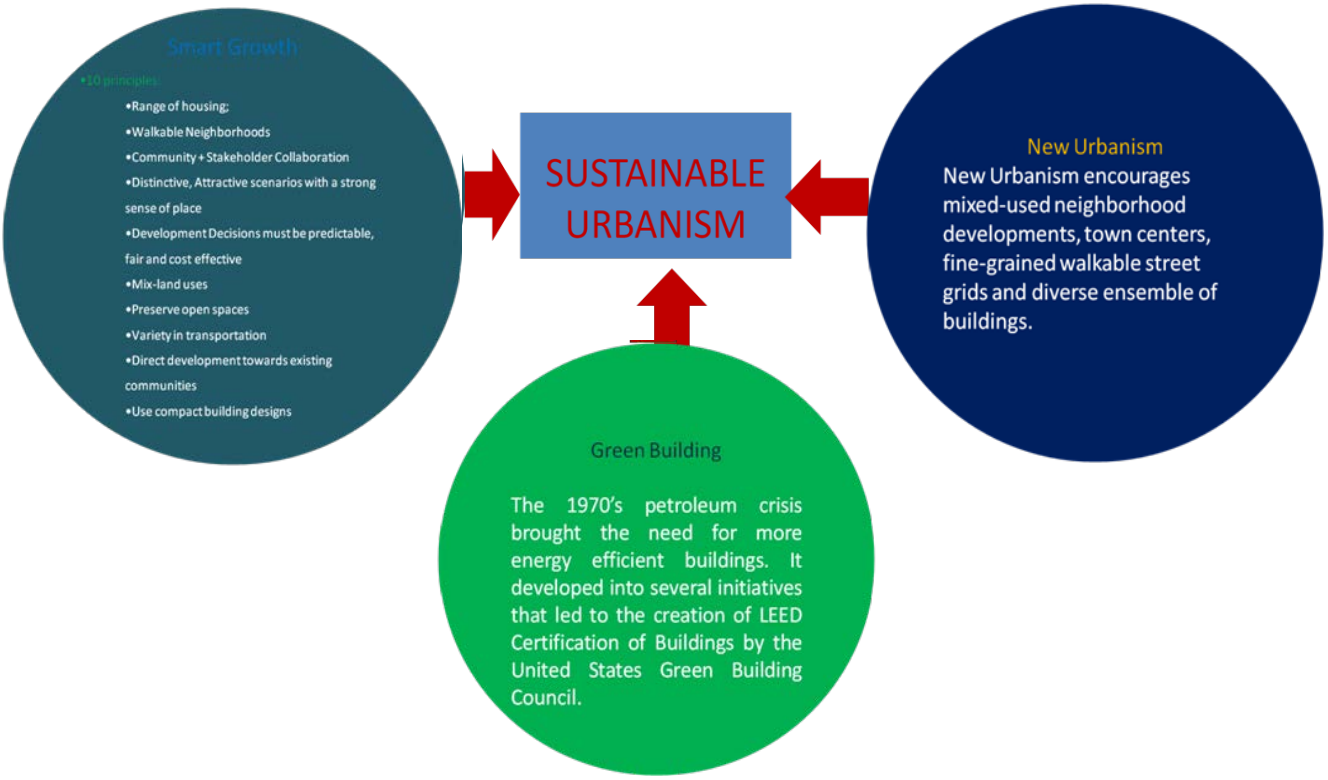
To summarise, both versions of the compendium can be understood to be useful guidebooks which can direct urban designers and planners in the UK to create sustainable places and communities on all three counts; which is widely recognised as the current scope of urban design.

2.4.8- URBAN DESIGN WITH NATURE - SUSTAINABLE URBANISM - DOUGLAS FARR

'*Sustainable Urbanism: Urban Design with Nature*' by Farr (2012) can be introduced as a compilation of previous work on sustainable urban development. Farr tries to combine three different concepts on sustainable urban development and to develop a more successful framework for urban design and development. As Farr (2012) states, these findings are the outcome of a combination of smart growth principles, new urbanism and green design. Each of these concepts has contributed in many ways to sustainable urban development but each of them has missed some aspects which should be included in order to create a truly sustainable environment at the triple bottom line of social, economic and environmental sustainability.

Based on this Farr (2012) argues that there is no point in considering green design concepts and low carbon building designs without proper focus on reducing automobile travel and increasing neighbourhood satisfaction for people. Accordingly, Farr links the principles of smart growth and new urbanism with green building concepts in order to deliver a sustainable environment. The following figure illustrates the components necessary for creating sustainable urban development,

Figure 2-4- Components for sustainable urbanism (Farr, 2012)



Farr's work on sustainable urbanism is a very influential piece of work which strengthens the scope of urban design today. In this new millennium the scope and aim of urban design has gradually changed towards creating sustainable urban design solutions which focus on social, economic and environmental aspects. The work of Egan (2004) describes how the three dimensions of sustainability can be adapted to meet the urban design context today. Farr's concept on sustainable urbanism explains where we are currently and where we need to move forward to achieve the so-called sustainable urban environment. His argument starts at a point which is not commonly discussed in urban development; he begins by arguing about the current pattern of life and criticises the declining ratio of health and obesity. Farr believes that the decline in local neighbourhood living is the major reason for this. As Farr (2012) states, people today do not live entirely locally; they have arranged many of their needs at a travelling distance. For example, in the past in American society many children used to walk 3-4 miles to school, about 45-60 minutes, but today the maximum average time for walking per day has declined to 3-4 minutes. As Farr states, people need to live locally in a neighbourhood where they can walk and cycle to their day-to-day life activities and where they know each other. The key difference between New Urbanism and Farr's Sustainable Urbanism is that he integrates Green Design and LEED (Leadership in Energy & Environmental Design) practices. His argument is that no sustainable community can be

created without considering green building practices. New Urbanism principles offer a better framework for sustainable urban development and design whereas LEED focuses on the green design of each building. Therefore his argument is that, without new urbanism and smart growth principles, there is no point in using green building practices and without considering the individual performance of buildings there is no use adopting new urbanism and smart growth practices.

In summary it can be determined that Farr's work has supported the enhancement of the current scope for urban design which is to create the three dimensions of sustainability as stated by Egan (2004) and, furthermore, Farr has particularly focused on creating sustainable urban communities using urban design principles and thinking beyond the concept of sustainable place making in urban design.

2.4.9-SUSTAINABLE URBAN DEVELOPMENT - THE BEQUEST APPROACH

A pan-European network called BEQUEST (Building Environmental QUality Evaluation for SusTainability), which began work in 1998, published (in the UK) five very influential books in the field of urban development and design. The overall aim of this research network was to develop a common language and understanding of sustainable urban development and design, the process of developing a built environment that meets peoples' needs, whilst avoiding unacceptable social or environmental impacts. The network developed a system, called the BEQUEST Toolkit, consisting of modules that advise on how to evaluate urban development and design proposals for sustainability linking together a number of assessment tools that emerged from practice and research in the previous decade. A glossary of terms relating to sustainable urban development (SUD) as well as links to best practice examples and other additional information are also included in the Toolkit. BEQUEST addresses issues in a holistic manner and aims to bridge the various scales of urban development from whole urban regions down to buildings and their components and materials.

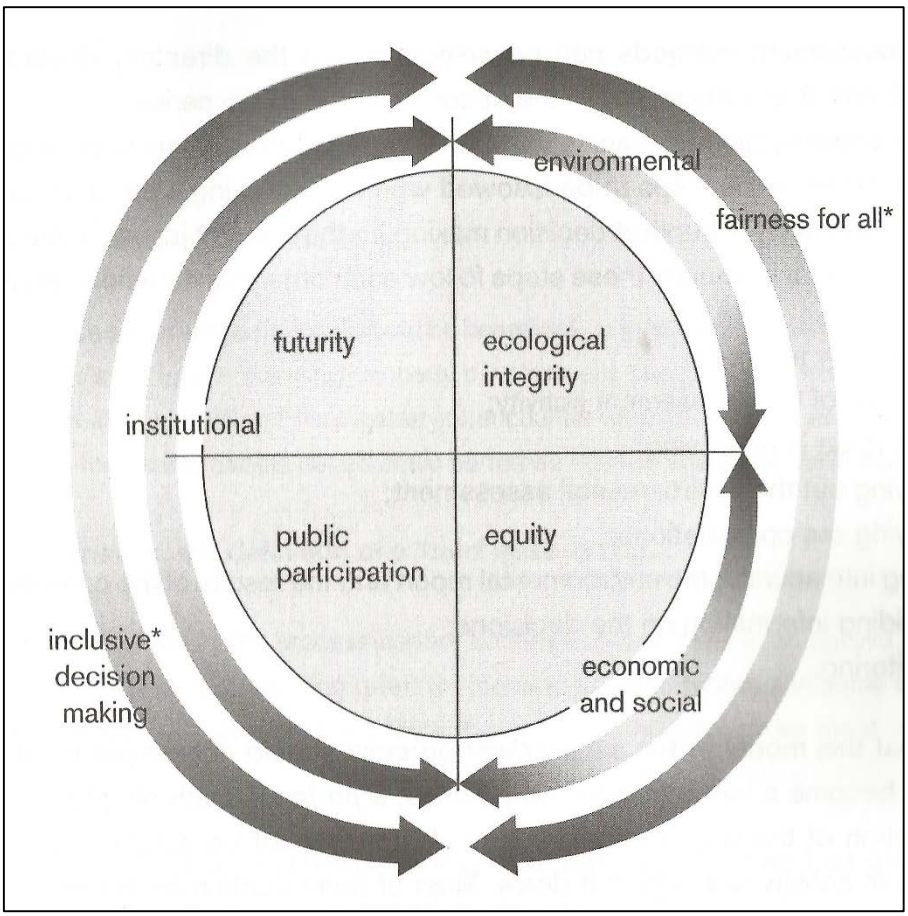
The BEQUEST approach is based on the PICABUE model (Mitchell, May, & McDonald, 1995) for sustainable development that introduces four key principles in order to create sustainable urban environments in urban development and design which are listed below: (Curwell et al. (2007)

- Ecological Integrity
- Equity
- Public Participation

- Futurity

These four principles attempt to summarise the ‘Agenda 21’ principles developed at the UN Conference on Environment and Development (The Earth Summit) held in Rio in June 1992 in a way that makes them meaningful for urban development and design. The first aspect, ecological integrity, assesses the environmental aspect of sustainable development and design and the second component covers social and economic sustainability in urban development and design. Through the first two components of the BEQUEST approach the current scope of urban development and design has already been defined; the creation of sustainable development on three levels which are social, economic and environmental sustainability. An important and novel introduction in the BEQUEST approach is the third and the fourth components; they draw attention to the futurity of cities as well as to inclusive design through public participation. However, as a whole the fourth component (which is about the futurity of cities) is commonly discussed in sustainable development terms as in the Brundtland Commission on Our Common Future (World Commission on Environment and Development, 1987). This report defines sustainable development as the ‘development that meets the needs of the present without compromising the ability of future generations to meet their needs and aspirations’. This definition includes the futurity of cities. Most importantly The BEQUEST model includes the futurity of cities as one of the key components for sustainable urban development and design and by also adopting ‘public participation’ as another key component BEQUEST has provided an ‘eye opener’ for researchers and practitioners concerned with the future of sustainable development and design. As Fraser, Dougill, Mabee, Reed, and McAlpine (2006) state, the public-focused bottom-up approach whereby the community can engage actively in the development process will capture locally significant factors and will help to achieve sustainability indicators. The BEQUEST approach describes inclusive decision making using public participation; it identifies the importance of exploring all the opinions of the stakeholders in the development process. The following figure presents the BEQUEST framework for sustainable development which is based on the four components discussed above.

Figure 2-5- The BEQUEST Framework - Curwell, Deakin et al. (2007)



The other key contribution of BEQUEST is that the BEQUEST approach emphasises sustainable urban development and design as a process where the sustainability improvements should begin at the starting point of any project; for example they emphasise how communities move gradually towards a more sustainable life. The BEQUEST emphasis has some similarities with the emerging regenerative design process (Reed, 2006) as it tries to engage the community in development projects.

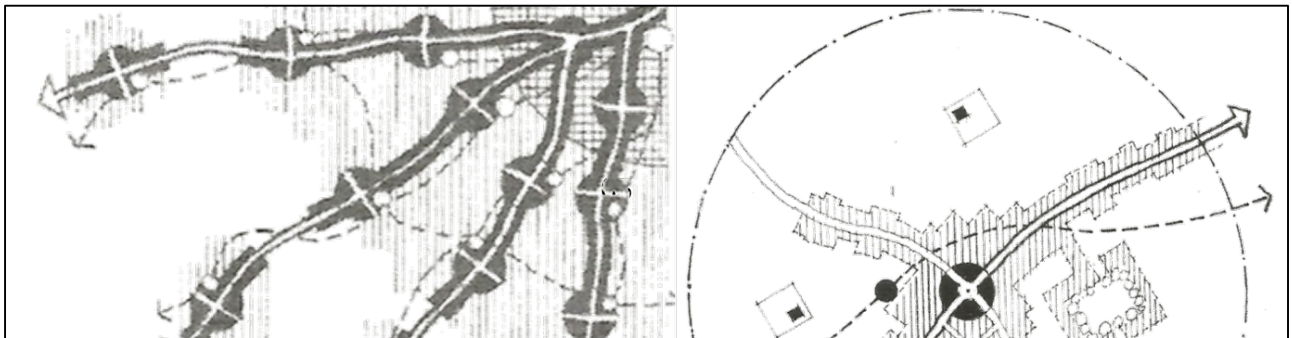
In summary it can be noted that the work of Curwell et al. (2007) has strengthened the current scope of urban design while adding more aspects to the current scope of urban design. As the authors have discovered urban design should meet its triple bottom line of sustainability while giving opportunities to the public to participate in the urban design process.

2.4.10- SUSTAINABLE URBAN DESIGN: AN ENVIRONMENTAL APPROACH

'*Sustainable Urban Design: An Environmental Approach*' (Ritchie and Thomas 2013) is one of the latest books which discusses sustainable urban design from a broader viewpoint.

This study tries to describe sustainable urban design in a micro context while also discussing social economic and environmental sustainability. As Ritchie and Thomas (2013) state sustainable urban design should share the values of social, economic and environmental sustainability and that sustainable urban design is vital in order to secure our health, welfare and future. Additionlly, the authors indicate the importance of the individual perfomance of buildings in achieving sustainability and discuss the energy consumption and construction of energy efficient buildings considering the micro aspects of building designs such as saving energy by using solar powered systems, reducing the effect of greenhouse gases etc. This work integrates with the work of Farr (2012) as Farr's Sustainable Urbanism concept is a combination of new urbanism, smart growth and green design. As in Farr, Ritchie and Thomas (2013) place emphasis on the creation of sustainable urban environments by creating socially, economically and environmentally sound environments and by integrating sustainable building designs. Furthermore, Ritchie and Thomas (2013) introduce the concept of sustainable urban structures at the level of a town or a city; identifying the walkable community or urban village as a fundamental building block in creating a sustainable urban form. Accordingly, they introduce the concept of a polycentric urban structure (figure 2.6) in which a town or city is comprised of a network of distincts with overlapping communities, each focused on a town district or a local centre and within which people can access, on foot, most of the facilities and services needed for daily living. These communities are called the walkable catchment or 'pre shed' around the centre. This area is considered to be about 800 metres, a distance equating to a 10 minute walk. However, this idea was first introduced by the Urban Task Force (1999) which was chaired by Lord Richard Rogers.

Figure2-6- Polycentric urban structure, Ritchie and Thomas (2013)



This polycentric urban structure has many common features with the principles of new urbanism. As discussed earlier in this chapter, new urbanism incoporates the concept of the walkable neighbourhood and based on this concept many novel concepts such as those put forward by Farr (2012) encourage and maintain the factor of a walkable neighbourhood in their influential work on sustainable development. However, generally, those promoting new urbanism introduce the principle of the traditional neighbourhood structure with a focus on encouraging the walkable neighbourhood but in the work of Ritchie and Thomas (2013) they develop a detailed structure for a sustainable neighbourhood as described above. Therefore, as previously stated, this work can be viewed as one of the latest seminal works on urban design which sees urban design in a more sustainable perspective both on a macro scale and also on a building design scale.

2.4.11- OVERVIEW OF OTHER CURRENT UD POLICIES AND RECENT UD PROJECTS

2.4.11.1- THE SURegen WORKBENCH

SURegen workbench is an innovative interactive online platform recently completed to help those new to urban regeneration to acquire and develop skills by providing information on best practice illustrated by case studies (The University of Edinburgh, 2014). According to The issues project (2009), government policies on urban regeneration aim to bring about economic, social, physical and environmental improvements in urban areas. But as they stated even though the government policies seek to bring economic, social, physical and environmental improvements, they are often hampered by a skills-gap amongst built environment professionals, planning authorities and developers. Accordingly, this project aimed to tackle the complexity, uncertainty and ambiguity of the urban regeneration process by assisting regeneration stakeholders in day to day decision making and strategic processes. SURegen are currently a web-based virtual workbench which provides the support for professionals and other key decision-makers in regeneration. The workbench includes a set of integrated decision support tools to help professionals working in the field to make critical decisions, as well as to enable those who are new to the field to acquire the skills they need to meet its challenges.

SURegen workbench does not directly describes the matters related to urban design. But SURegen addresses the issues in relation to urban regeneration where urban design also stands as a part of urban regeneration. Further, the motive to introduce the SURegen workbench further illustrates the current scope of government urban policies which is creating urban areas which are socially, economically and environmentally functional (The University of Edinburgh, 2014). The same governmet policy initiative is applied in the context of urban design. As the Department for Communities and Local Government (2014) describes good design is about creating places that work for everyone, it should look good, last well and will adopt to the needs of communities and future generations. Accordingly, this emphasises the current scope of urban design and this SURegen virtual platform can also be used by the designers in the urban design process. Chen, Song, Bowker, and Hamilton (2012) emphasise the importance of this workbench. As they stated, sustainable urban regeneration requires a comprehensive and integrated vision and action to address the resolution of urban problems and bring about a lasting improvement in the economic, physical, social, and environmental conditions of an area. Accordingly, this online platform works as a decision making and knowledge sharing platform for urban planners, local authorities, and other practitioners to achieve sustainability in urban regeneration activities.

Furthermore, the workbench specifically addresses the management of urban regeneration projects and the skills gaps amongst regeneration professionals.

2.4.11.2- THE LUDA project

LUDA is a research project which aimed to improve the quality of life in large urban distressed areas. Under the LUDA project, The programme Energy Environment and Sustainable Development within the Fifth Framework Programme of the European Union (2006) developed a handbook for community-based approach to sustainable urban regeneration. This handbook has provided insights for community based urban regeneration and the nature of participatory workshops. This project identified the need for sustainable urban regeneration in its triple bottom line (social, economic and environmental) and the need for a community based approach in order to achieve the so called sustainable urban regeneration. The findings of this handbook provide positive insights to develop a new community based urban design process in order to achieve the current scope of urban design. Deakin (2009) highlights the LUDA project is an influential recent project to identify the key roles of community participation and future workshops which can play a key role in sustaining their regeneration and bringing about improvements in the quality of life.

2.4.14.3- National Planning Policy Framework (England)

The National Planning Policy Framework sets out the Government's planning policies for England and how these are expected to be applied. It sets out the Government's requirements for the planning system only to the extent that it is relevant, proportionate and necessary to do so (Department for Communities and Local Government, 2012). This national policy set outs the current aim and objectives of the planning system of England. This national policy framework provides the overall picture on how the country's urban development should look like. This broader national picture is applied to the urban design context too, as urban design in England is governed under the national planning policy framework. Accordingly, the national policy planning framework specifies that the urban development should be sustainable and the policy framework provides the three dimensions of sustainable development which are economic, social and environmental dimensions. Accordingly, this indicates that the national planning policy framework is a directive to achieve the current scope of urban design which is the creation of socially, econmcially and environmentally sustainable urban environments.

2.4.12- SUMMARY OF THE SCOPE OF URBAN DESIGN AS DERIVED FROM THE INFLUENCIAL SEMINAL WORKS

In this section, the researcher summarises the critical review of literature emphasising the scope of urban design.

When referring back to the work of Kevin Lynch, Jane Jacobs and urban design manual-responsive environments, it is clearly evident that they have tried, in particular, to introduce a social usage practise for urban design which is primary concerned with the public user and their experience of urban environments. Carmona et al. (2010) state Kevin Lynch and Jane Jacobs are the key proponents of this social usage tradition. This social usage tradition chiefly tries to provide 'the sense of place' through urban design. As explained by Jarvis (1980) Lynch has shifted the focus of urban design in two ways: firstly, in terms of the appreciation of the urban environment emphasising that the pleasure in urban places is a commonplace experience and, secondly, in terms of the object of study instead of examining the physical and material form of urban places. Furthermore, as argued by (Jacobs, 1961), the city would never be a work of art because art was made by 'selection from life' while a city was *'.life at its most vital, complex and intense.'* Consequently, she concentrated on the socio-functional aspects of streets, sidewalks and parks. These arguments establish that the original scope of urban design was to create places which are aesthetically pleasing and provide pleasure for users. Critical concern about the argument of Jacobs (1961) that *'the city would never be a work of art'*, indicates that the previous scope of urban design was city beautification and enhancing the aesthetic aspect of cities. The initial scope of urban design was firmly identified in the section 2.2. Accordingly, at this point it can be noted that urban design has two traditions (scopes) that have been pursued from its beginnings through to the late 1980s'. Carmona et al. (2010) introduced the first tradition as 'the visual-artistic tradition' and the second tradition as 'the social usage tradition'. Then, within the last 20 to 30 years as stated by Carmona et al. (2010) a third tradition (scope) was introduced, that is referred to as sustainable urban design/place making. As explored throughout the main section of 2.4, this third traditional of sustainable urban design/place making is the current scope for urban design and seeks to create urban environments that are sustainable places

from the triple bottom line of social, economic and environmental sustainability in place making.

Accordingly the current scope of urban design has been firmly established and section 2.5 outlines the current process of urban design, its implications to achieve the current scope of urban design and the need for a new process framework for urban design to achieve the current scope. As justified earlier the key motivation for conducting this research study was to build a new urban design process framework to overcome the negative implications of the current process for urban design to achieve the current scope of urban design.

2.5- THE URBAN DESIGN PROCESS

As the Egan (2004) report has argued, the process used in urban design plays a vital role in delivering sustainable places and communities. Accordingly, section 2.5 explores, in detail, the urban design process. The first section ascertains the standard stages for any urban design process and thereafter the second and third sections explore the current urban design process and its implications for sustainable urban design. Following this a review has been conducted of the urban design process suggested by many authors and the possible implications for sustainable urban design. In the final two sections, the need for a new UD process framework is explored and the literature informed components of a sustainable urban design process are presented.

2.5.1- STAGES IN AN URBAN DESIGN PROCESS

Roberts and Greed (2001) state that the urban design process occurs in four sequential stages; which are called the framework for urban design and cover the following:

- Defining the problem.
- Developing a rationale.
- Summary of development opportunities and constraints.
- Conceptualising and evaluating urban design options.

Adopted from - (Roberts & Greed, 2001)

As Roberts and Greed (2001) discovered in the first stage, 'defining the problem' the study area is defined, surveys of the study area have been conducted and the urban form and activities are analysed. Thereafter, the second stage 'developing a rationale' planning/socio-economic context, built form/townscape, land use/activity movement or access, physical and natural environment, socio-space and cultural space and public realms are assessed by means of SWOT analysis or scenario development. Thirdly, the development opportunities and constrains are developed and then, the developed urban design options are evaluated before finalising the scheme.

Similarly Moughtin (2003) describes the urban design process in line with the RIBA practice and management hand book of the time. He also explains that there are four main phases in the design process which are as follows:

- Phase 1 *Assimilation*: the accumulation of general information and information specifically related to the problem.
- Phase 2 *General Study*: the investigation of the nature of the problem: the investigation of possible solutions.
- Phase 3 *Development*: the development of one or more solutions.
- Phase 4 *Communication*: The communication of the chosen solution to the client.

Adopted from -(Moughtin, 2003)

As Moughtin (2003) explains in phase 1, '*Assimilation*'; the background of the urban design process is prepared including information specifically related to the urban design problem in question. Thereafter, in phase 2, '*General Study;*' the urban analysis is conducted while investigating some possible solutions. In phase 3, '*Development';* possible solutions identified at the previous stage are further developed before communicating them to the client. With the exception of phase 4 '*Communication*' the previous three phases are all similar to those discovered by Roberts and Greed (2001).

Carmona et al. (2010) introduce the urban design process in stages, and have stated that each stage represents a complex set of activities, which, while generally portrayed as a linier process is iterative and cyclical. Each sequential stage is presented below:

- Setting goals- in conjunction with other actors (particularly clients and stakeholders), having regard to economic and political realities, proposed timescale, and client and stakeholder requirements

- Analysis- gathering and analysing information and ideas that might inform the design solutions
- Visioning- generating and developing possible solutions through an iterative process of imaging and presentation - usually informed by personal experience and design philosophies
- Synthesis and Prediction - testing the generated solutions as a means to identifying workable alternatives
- Decision making - identifying which alternatives can be discarded and which are worthy of further refinement or promoting as preferred design solutions
- Evaluation- (appraisal) reviewing the finished product against the identified goals.

Adopted from (Carmona et al., 2010)

Boyko, Cooper, and Davey (2005) introduce the urban design process in four stages which are as follows:

Stage 1: creating teams, appraising the situation and forming goals

Stage 2: designing and developing.

Stage 3: evaluating, selecting and creating a plan.

Stage 4: implementing, monitoring and following up

Adopted from (Boyko et al., 2005)

As explained by Boyko et al. (2005), stage 1 is the platform for preparing for the UD process by formulating teams and forming goals and deadlines. The second stage is intended for urban analysis and draft strategy generation whilst the third phase provides for the development of the detailed plan. Stage 4 is the implantation stage and as justified in section 1.3 this research study focuses only on the urban design process and not the implementation process. Therefore, the fourth stage presented by Boyko et al. (2005) is not considered in this study.

When critically evaluating the stages introduced by different authors for the urban design process, it can be noted that all of them generate common stages but use different names. As presented above Moughtin (2003), Carmona et al. (2010) and Boyko et al. (2005) recommend a preparation stage in the urban design process to create teams, make deadlines etc. Thereafter the four authors outline common stages in the urban design process which

seek to identify any problems, carry out an analysis of the urban area and develop a vision and initial strategies, and finally, there is a stage for design development. Accordingly, based on this analysis the researcher has conceptualised five key stages in the urban design process which support the development of an urban design process framework. In other words the urban design process framework has been developed and explained using these five key stages for the urban design process. The five key stages are as follows:

1. The preparation stage - A platform for creating a project team, deciding deadlines etc. This stage must take place before assessing urban issues
2. Problem identification stage - This is the point at which initial urban issues and problems are identified
3. Urban analysis stage – A detailed analysis of the urban environment takes place at this stage which can lead to a SWOT analysis etc.
4. Vision and strategy generation – This is the stage where initial solutions are developed, assessed and refined
5. Design development stage - The stage where the solutions that have been developed are individually assessed to form solutions that are realistic and feasible

2.5.2- URBAN DESIGN PROCESS IN PRACTICE

As described by Roberts and Greed (2001) in section 2.4.1, the urban design process occurs in four sequential stages. The have explained the behaviour of project team members in these four stags. As they discovered, during the first stage ‘defining the problem’ the planning or design team appraises the study area by conducting surveys associated with the urban form by undertaking an activity analysis. Thereafter, based on the analysis, the team develops a rationale with a summary of development opportunities and constraints. In the latter stage, area strategies and urban design options are evaluated by team members who then finalise an urban design strategy for the area. This indicates that, in practice, the current urban design process is stiff and directly indicates that it is a totally top-down process.

Similarly, the four key stages described by Moughtin (2003) in the urban design process (section 2.4.1), and in line with the RIBA practice and management hand book of the time, can be taken as another example which emphasises the top-down nature of the urban design

process. As explained by Moughtin (2003) in the first phase of the process an architect, planner or urban designer is appointed to identify the problem area and, thereafter, analysis is undertaken; based on the conclusions from the analysis strategies for future development are generated. Once a design is generated, at the latter stage of the process, the client and other stakeholders are consulted.

In reality, most designers are aware that the practical process is much more iterative; nevertheless many similar linear sequential models are espoused. In both these process models community involvement in the design process is not particularly mentioned nor identified as being an important step in the urban design process and this is indicative of the stiff nature of the top-down urban design process.

C. T. Boyko, Cooper, Davey, and Wootton (2006) identified a more recent development in the urban design process which considers stakeholder engagement. There are four main steps in this process including four transitional stages. The key four stages in this process are as follows:

Stage 1: Creating teams, appraising the situation and forming goals.

Stage 2: Designing and developing.

Stage 3: Evaluating, selecting and creating a plan.

Stage 4: Implementing, monitoring and following up.

Between each of these stages there are transitional stages which allow the stakeholders to be engaged and to shape the findings from each stage. For example, once professional actors have appraised and formed goals for the design of the area there is a transitional stage where stakeholders are consulted and are engaged in shaping the goals to be adopted. Likewise, at each and every stage, a transitional period has been allocated for stakeholder engagement. From this emerges an urban design process that places some importance on the aspect of community engagement. However, this process is still top-down in nature because at each stage the professional actors maintain their dominant lead over other stakeholders. Also, in this kind of top-down process, there is a hidden danger; as argued by Larice and Macdonald (2007) this type of community consultation can lead to the manipulation of local opinion rather than genuine participation because the agenda has already been framed and developed by professional actors.

The Department of Infrastructure & Regional Development Australia (2013) has developed its own urban design process as a part of an urban design protocol for Australian cities. In this process four common themes are introduced under different sub themes as follows:

- Context

Strategic planning - a project should work within the context of the strategic planning framework.

- Engagement

Relevant stakeholders, including the broader community, should be given the opportunity to provide input and feedback at key stages of the process. They can help to develop the vision, review design options and provide feedback during a public exhibition.

- Excellence through: leadership, collaboration and teamwork, integrated processes, design culture.
- Custodianship - ensure that systems are in place for on-going operations and management to ensure the location is well-maintained and sustainable in the long term.

This urban design process sets in motion the integration of professional actors and stakeholders; 'engagement' is considered to be the main means by which stakeholders and the community are consulted thus raising in importance the community vision for the area. However, even this process, which has many features which form community perspective, is still controlled entirely by professional actors due to the fact that until the vision development stage of the design process is dominated by professional actors.

Walton et al. (2007) state that creating successful neighbourhoods depends on understanding humans as well as the physical context of a place and appreciating the dynamics of the local community, including local attitudes, initiatives, history and customs. Therefore, Walton et al. (2007) suggest that opportunities should be provided for people to participate in identifying issues and debating options from the earliest stages. People should become involved at the point where they have the potential to make a difference. However, at the same time, (Walton et al., 2007) describe a case study about community engagement in Ashford, UK where the community was consulted and engaged to develop a range of scenarios in relation to a vision. Even in this project community engagement was sought only after the vision had been developed and where the previous stages of the process had

already been undertaken by professional actors. This indicates that, in this project, the urban design process still relied to a considerable extent on a top-down process and it further indicates the nature of the current UD process in practice.

Another good example of the current process of urban design and planning can be found in the Asian context in India. Roy and Ganguly (2009) analysed a case study which gave prominence to stakeholder engagement. The case study was called 'Participatory Planning Experience in West Bengal' and in this process three major stages were introduced with 3-4 sub steps at each stage. According to this process, at the first and the second stages the urban area analysis and the development options were generated by professional actors and, thereafter, at the third stage, the community was consulted and engaged only to shape and finalise the development options. Therefore, even though the authors introduced this case study as an attempt to integrate top-down and bottom-up processes, this still indicates the continuation of the top-down process in urban design.

Lawson (2006) describes the current process of urban design, which follows a sequence of activities, as unconvincing. He argues that many designers learn about the design problems largely by trying to solve them. As he has explained, the current process does not allow a clear platform for in depth analysis of urban problems and the process is led by designers. Greed and Roberts (2014) have also discussed the urban design process stating, that currently, there are ongoing debates on the question of '*who are the real designers, the community or the professionals?'* Accordingly, the authors have concluded that the current urban design process is a mainly inflexible and top-down process.

Based on the discussions and findings made throughout this section, it can be noted that the current process for urban design is mainly top-down and dominated by urban planners and designers and offers few opportunities for the community to partake. However, as evidenced above the current urban design process is not completely controlled by professionals as there are some examples where communities have been given engagement opportunities; but the above discussion also provides enough evidence to justify that the current process of urban design is top down in nature.

This section specifically explored the current urban design process and the next section will explore the positive and negative implications of the current urban design process for sustainable urban design.

2.5.3- URBAN DESIGN PROCESS IN PRACTICE AND ITS IMPLICATIONS ON SUSTAINABLE URBAN DESIGN

As discussed in the previous section, the predominant urban design process has a high level, top-down approach. Therefore, this section seeks to identify and analyse the positive and negative aspects of the current process in order to identify the implications for effective community engagement and, therefore, for sustainable development.

Fraser et al. (2006) state that design processes typically lead by experts simply comply with the funding agencies and this top down process may alienate the community and fail to capture locally significant factors. The authors' further state that projects designed using this top-down model do not necessarily engage community members or ensure that indicators are relevant at the local level. However, as explained by the same authors, this type of top down processes reduces the risk of being time and resource intensive. Larice and Macdonald (2013) have also specified that a top down urban design process is less time consuming as the whole process is pre-defined and controlled by professional actors. Supporting the argument of Fraser et al. (2006) regarding the alienation of locally significant factors in a top down process, Roy and Ganguly (2009) have stated that a classic top-down process provides early, high level planning which may not deal with the real issues at ground level. As the authors have explained, a top-down process has no significant understanding of the specific issues, or their cause, at ground level. The Commission for Architecture & Built Environment (2000) argues that a blanket policy of using a top-down process across all locations at all times is not suitable for urban design because each design solution should be distinctive and specific to each context in which it is to be implemented. The distinctiveness of the place has been widely discussed by the seminal author Norberg-Schulz (1980) who have particularly explained that each location has its own distinct features which is, in effect, the 'genius loci' of that particular place. Accordingly, the findings of the Commission for Architecture & Built Environment (2000) has been firmly entrenched with the findings of Norberg-Schulz (1980); where Schulz identifies the distinctiveness of each place the Commission for Architecture & Built Environment has gone one step beyond and explored the negative implications of a top-down process on the identification of distinctive features in a local context. Carmona, Heath, Oc, and Tiesdell (2003) maintain that the danger of the top down process is the prior formation of the agenda which may lead to the manipulation of local opinion rather than addressing genuine community needs that emerge through

effective participation. Supporting the argument of Carmona et al. (2003), and adding to that argument, the Commission for Architecture & Built Environment (2000) has stated that local stakeholders often have particular insight into specific urban design issues affecting a given context and, therefore, urban design solutions developed through a top-down process may not be accepted by the majority of stakeholders. While many authors have discovered the negative implications of the current top down process, Larice and Macdonald (2007) have exposed several positive implications of the current top down process. Accordingly, the authors have asserted that in a top down process development options or proposals are already prepared, therefore, it is easier to focus on the community consultation process. Furthermore, they discovered that a top-down process is less time consuming due to the whole process being predefined and controlled by professional actors. In addition Larice and Macdonald (2007) argue that a top-down process is more effective in terms of resource mobilisation because professional experts mobilise, co-ordinate and interpret community options. Even though Larice and Macdonald (2007) are positive about the current process of urban design, Cooksey and Kikula (2005) argue there are more negative implications in the current process than positive implications. As the they discovered the key positive implications are; a top-down approach gives government planners and designers a sense of control and efficiency while donor agencies are keener to invest in projects which have a top-down process because they feel that budgets can be maintained along with pre-established targets and timetables. But as has also been argued there are numerous negative implications to the top-down process and these are presented below:

- Decisions are made centrally by organisations that are remote from the project area. Participation of stakeholders is limited to the provision of data or to approving and adhering to what has already been planned.
- Planners and bureaucrats proceed from a starting point of a clean slate and assume they are in possession all the requisite knowledge for improving people's lives. In reality, they are making interventions in a well-established community social system which has survived over generations of struggle and interaction with the local environment.
- Plans are generally based on quantitative data or numerical estimations collected through rapid diagnostic feasibility studies or project formulation missions.

- Planning (as well as implementation) follows a pre-conceived project design (a master plan) with a fixed time schedule often extending over several years and leading to rigid interventions that do not respect or consider environmental changes, local initiatives and development choices.
- The process follows a predetermined project design usually based on assumptions of uniformity and cost-effectiveness regardless of specific conditions pertinent to the area where the project is to be implemented.
- Top-down process is usually based on poor assumptions of social and environmental behaviour which are often proven to be incorrect because locality and social formations differ.

  (Cooksey & Kikula, 2005)

Karsten (2009) has argued the current top-down urban design process from the perspective of urban planning and city development. She states that three urban discourses exist; the attractive city, the creative city and the emancipatory city. She has argued that all of these dominant discourses are top-down and tend to overlook the day-to-day life of residents and particularly of family residents. She has further stated that top-down processes focus only on city centres and not the needs and aspirations of local districts and residents. Bell (2005) has argued that to achieve good urban design it is necessary to identify local features, such as, social and cultural features, heritage, movement and access, environmental management etc; she has also stated that the current process of urban design often fails to identify such features in the local context, and therefore, this makes creating a good urban design challenging. Accordingly, she suggests the need for a new progressive process for urban design which has a scope to include the local context. Directly supporting the argument of Bell (2005), Boyko et al. (2005) have stated that the urban design process must be transformed to create sustainable urban environments. Similarly, the Technical Manual for BREEAM Communities (BREEAM, 2012) has also specified that to ensure the needs, ideas and knowledge of the community are considered it is vital to change the rigid top-down process model, and to ultimately, achieve sustainability in urban design.

Based on the findings from the literature synthesis in this section the positive and negative features of the top down process model can be summarised as follows:

Positive features

- A top-down process gives planners and designers good control over the design

project

- Community consultation is easy in top-down process as the plans are already prepared
- Less time consuming
- Effective use of resources
- Donor agencies are keener to invest in projects which use a top-down approach

Negative Features

- Alienates local community members and fails to capture locally significant factors
- Provides early and high level planning which may not deal with the real requirements at ground level
- Does not identify specifically the uniqueness of the local entity
- Could leads to manipulation of local opinion rather than addressing genuine community needs that emerge through effective participation
- May not be accepted by the majority of the community
- Participation of stakeholders is limited to the provision of data or to approving and adhering to what has already been planned.
- Planners and bureaucrats proceed on the assumption that they possess all the knowledge required for improving people's lives. In reality, they often fail to understand the social system
- Generally based on quantitative and numeric analysis than identifying particular facts in the local context
- Often fails to identify area the specific conditions of the area in which the project is to be implemented
- Usually based on poor assumptions of social and environmental behaviour
- Overlooks the day-to-day life of residents and particularly of family residents
- Fails to capture local knowledge

As described in section 2.4 the current scope of urban design is to create sustainable urban designs. Sustainable urban design is about creating high quality neighbourhoods for people in terms of the "triple bottom line". Therefore, as determined in this section, to create sustainable environments the urban design professional needs to diagnose the urban

environment properly and create design solutions which match the needs and aspirations of the community. Based on the findings from literature the question can now be posed – how can this be achieved, without the full engagement of the community, in every aspects of the design process, particularly urban analysis and vision creation? Without an in depth understanding of place – the 'genius loci' - designers tend to begin with a 'clean sheet' and risk bringing forming development strategies that do not link the past, present and the future effectively through the design solution. Therefore, as discovered in this review, using a top down process may result in the roots of local problems and local significant factors being overlooked. When local significant factors and problem are not clearly identified in the urban design solutions developed by professional, primarily, working alone there is every chance they will not fulfil the needs and aspirations of local communities. And it can be argued that a development solution which does not fulfil community needs and aspirations may not be acceptable to local communities, In consequence, current problems and issues in the area remain unsolved and additional issues are created; loss of community commitment to the area could ensue thus devaluing buildings and land which in the long term could result in an unsustainable area. Accordingly, it can be noted that the current top-down process has many negative implications on sustainable development, however, as this section has established a top-down process does have some positive implications, but on the whole, many authors and researchers reject a top down urban design process and suggest that a bottom up urban process is necessary to achieve sustainability in urban design. However, a fully bottom up process has also been criticised by many authors and researchers citing loss of control and ineffectiveness. In section, 2.5.4, the nature of the bottom-up process proposed by many authors is discussed and criticisms relating to bottom up process are presented in section 2.5.5

2.5.4- BOTTOM-UP URBAN DESIGN PROCESS AGAINST THE TOP-DOWN URBAN DESIGN PROCESS

To overcome the constraints identified in the top down urban design process, many authors and researches have discussed implementing a bottom-up approach in order to deliver sustainable urban designs.

Roy and Ganguly (2009) support the development of a bottom up urban design process and have argued that a bottom-up approach to designing makes more sense because a community intuitively understands their needs and aspirations better than professional actors. Therefore, the involvement of a community from the beginning to the end of a project will help to deliver more sustainable solutions.

Fraser et al. (2006) state that a proper bottom-up approach where the community can engage actively in the development process will capture locally significant factors and will help to achieve better results in relation to sustainability indicators. These authors (Fraser et al., 2006) have provided many logical reasons as to why we should move to a proper bottom-up approach. Some of the key points that they make are as follows:

- A bottom-up approach provides a comprehensive assessment of local social, environmental and economic issues which help to diagnose the local context in a detailed manner rather than relying only on quantitative facts and figures.
- A bottom-up approach fills the gap between the problems identified by the planners and the actual problems that exist in an area. It also promotes increased sensitivity to local issues.
- Solutions generated through a bottom-up approach are grounded in the locality, and therefore, addresses local issues and provides sustainable solutions.
- A bottom-up approach increases a community's capacity to manage their environment, and therefore, the community is empowered.

Moughtin (2003) cites the Millgate Project implemented in Nottinghamshire by the Nottingham Community and Housing Association. This project adopted the fundamental theories of sustainable development and permaculture. The community was allowed to design their own homes. The impetus for this project came from Mark Vidal Hall, the vicar of Chellaston, Derbyshire, who argued that the methods used by the architects and planners to create communities were quite wrong. His criticism was that the professionals involved in the building industry put more effort into the physical structure rather than being concerned with the requirements of the community. In this project the community took on

many responsibilities in order to successfully complete the project from beginning to end. They felt that the project belonged to them and that the development was not forcefully implemented from the “top”.

Reed (2006) describes a whole system approach is needed to achieve real sustainability beyond the so- called “green design”. He states that the whole process needs a change in thinking and in this model he emphasises the importance of having a proper bottom-up approach to understanding a place. This approach has been referred to as regenerative design because it seeks to restore the physical, social and environmental systems to ‘good health’.

Batty (2008) states that cities have been treated as systems, and in the last two decades the focus of city treatment has been changed more towards systems whose structure emerges from the bottom up. Consequently, the author stated, in a bottom up process cities are treated as emergent phenomenon generated through a combination of hierarchical levels of decision, driven in a decentralised fashion.

Greed and Roberts (2014) state, there has been considerable discussion on implementing a bottom-up urban design process. As they discuss in recent times, community members, residents, and minority groups have had a particular interest in urban design issues where they believe ‘the feel’ of the area is understood by the people who actually live in the area. Therefore, as described by the authors, non-professionals urgently want to have their say and look to bottom-up urban design processes.

C. T. Boyko et al. (2006) states that sustainability issues should be addressed early in the urban design process, and therefore, people who live, work and socialise in urban environments have a fundamental role to play in urban design. Accordingly, C. T. Boyko et al. (2006) suggest the constantly changing social, functional, aesthetic and emotional needs should be addressed in the urban design process by providing community engagement opportunities throughout the urban design process.

All the above literature suggests that the key characteristic of a bottom-up urban design process is community consultation and involvement from the beginning to the end of the project. This indicates the importance of consulting with the community at the urban analysis stage, as early involvement of the community helps to properly diagnose the area. Likewise, as indicated in the above literature synthesis, consultation with the community should continue through all the stages from the urban analysis stage through to strategy generation

and up to designs finalisation and the professional actor's role needs to focus on helping the community recognise the problems and the potential of their area.

This literature analysis indicates that there is still a need for a proper bottom-up urban design process which actually identifies community needs and aspirations and delivers sustainable solutions. Accordingly, in this doctoral study, the researcher is evaluating the concept of 'regenerative design' as the basis for a bottom-up process to urban design. Section 2.6 reviewed the regenerative design process and how it tries to achieve sustainability indicators and why it has been used as a basis for a bottom-up approach to urban design.

While there are convincing facts for the implementation of a bottom-up process in urban design, there are strong arguments about the negative features of a bottom-up process which refute the adaptation of a bottom-up process for urban design. The next section discusses about the drawbacks of the bottom up process.

2.5.5- BOTTOM-UP PROCESS, IS IT A SOLID SOLUTION?

As evidenced in section 2.5.4, the key characteristics of a bottom-up process is community engagement throughout the urban design process. And, furthermore, the section indicated that a bottom-up process is more decentralised and operates in a more liberated manner. However, as will be shown, there are criticisms concerning a bottom-up urban approach to a design process.

Cliff (2014) states the powerful role play by the non-designers in the urban design process is welcome and appreciated. The author further states that in order to understand the local context the role of non-designers is crucial; but the author argues against a design process which is fully grounded without the iterative mix of urban design philosophies and language. Similarly, Cooksey and Kikula (2005) state that a bottom-up process is ideal in order to understand the local context but a bottom-up process may reduce planner and designers control which will result in reducing the efficiency of the UD process. On the other hand the same authors speculate that donor agencies may not be particularly interested in projects which employ a bottom-up process as they are cautious that budgets and targets may not pre-established. Larice and Macdonald (2007) have also stated bottom-up processes may be time consuming and ineffective if they are not controlled by professionals but operate in a more decentralised manner. Pissourios (2014) argues bottom-up communicative planning lacks the crucial components of a typical planning theory. Consequently, he argues that bottom-up planning is more decentralised and community based rather than integrating

essential theoretical support for the process. He argues that basic features, such as, maintaining planning standards and classification of urban users are totally absent in a bottom up planning process. The argument of Oakley and Tsao (2007) is quite different from other arguments that have already been discussed; they believe that it is extremely difficult to attract community contribution due to the enormous commitment required of them throughout the process. This indicates that in a bottom-up process there are many instances when a project team needs to hold community participatory workshops or discussions which are sometimes ineffective at certain stages of the process. Larice and Macdonald (2013) of a similar theory to that put forward by Oakley and Tsao (2007) on the effectiveness of community engagement but more focused on the management of the community. The authors have argued that in a bottom-up process it is quite difficult to manage the community if the development options and proposals are not already prepared. Annibal, Liddle, and McElwee (2013) assert that local people have a unique perspective on their needs, joining up settlements, managing change through community led planning and delivery of innovative services but the authors have stated that the community needs to be organised, and therefore, a statutory service needs to be engaged which can identify local priorities, secure resources and undertake responsibilities.

Based on the above discussions it can be noted that even though the bottom-up process has been proposed as a potential process for urban design, a bottom-up process has its own weaknesses which can adversely affect the quality of the urban design project or its processes. Therefore, a pure bottom-up process itself may not be a complete solution as a new urban design process framework. Based on this argument the following section explores the need for a new urban design process framework for sustainable urban designs.

2.5.6- THE NEED FOR A NEW URBAN DESIGN PROCESS FRAMEWORK

As has been explored in section 2.5.3 the current urban design process is mainly top-down and it has a number of negative implications for the sustainable urban design. Therefore, as explored in the section 2.5.4 researchers and authors have discussed using a bottom up process in urban design. Nevertheless, as outlined in section 2.5.5 bottom up processes have their own negative features and which may adversely affect the creation of sustainable urban designs. Section 2.5.3 has explored the positive features of the current top-down urban design process which may positively affect the creation of sustainable urban designs. In order to avoid the drawbacks of both processes researchers and authors have argued the need

for a *'balanced'* urban design process integrating the positive features from both the bottom-up and top-down processes.

Pissourios (2014) has suggested a combined bottom-up/top-down process for a broader context of urban planning. As the author argued top down process planning was approached mainly as a technocratic procedure of urban intervention and planning theory was explained in the political discourse. As a result of this planning has become a subject that takes decisions based on technical aspects rather than considering the needs of people and their environment. On the other hand Pissourios (2014) argues the emerging communicative urban planning process lacks the crucial components of a typical planning theory. He argues that bottom-up planning processes are more decentralised and community based rather than integrating essential theoretical support for the process and he suggests the need for an integrated process specifically in the context of urban planning. Similarly, Cliff (2014) has explored the need for an integrated process, but particular, for the context of urban design. She has argued that the involvement of the community in urban design is vital it should be an iterative, community-based process combined with core design principles. For this reason she emphasises the need for a community embedded urban design process which has input from urban design professionals. As explained in section 1.2, Carmona et al. (2010) have stated the producer/consumer gap is a key issue in urban design. In this context the 'producer' is the urban designer and the people are the 'consumers'. As the authors have stated the lack of direct consumer input is a key reason for the producer/consumer gap. Since the consumer does not have any input into the process, the producer produces 'poor quality' developments serving narrower financial purposes. Accordingly, the authors proposed a combined methodology to bridge the producer/consumer gap. Annibal et al. (2013) also emphasise the need for a community based development but argued that it should be within a framework managed by urban designers. It was stated that a community needs to be organised to achieve successful engagement, and therefore, a statutory service needs to be engaged which can identify local priorities, secure resources and undertake responsibility.

Sections 2.5.3 to 2.5.6 have explored literature conveying many different viewpoints about the urban design process. All of the points of view expressed within these sections have emphasised the need for a new urban design process framework which provides guidance on the tasks to be undertaken and how the each task should be carried out at key stages in the urban design process. Accordingly, as justified in the section 1.2, this research seeks to

develop a new urban design process framework which emphasises community engagement but encompasses the essential positive features of a top-down urban design process.

Based on this the next section explores the key factors of a good urban design process which leads to the creation of sustainable urban designs.

2.5.7- LITERATURE INFORMED POTENTIAL URBAN DESIGN PROCESS FRAMEWORK

As decisively discovered in previous sections (2.5.3-2.5.6) a new urban design process framework is required, but there is still a question which needs to be answered about what attributes are required for an urban design process which leads to the creation of sustainable urban designs. In fact, these attributes have already been mentioned or discussed throughout the literature synthesis, as part of various topics, but the researcher seeks to further clarify these attributes and present them concisely in this section.

Carmona (2014) declares a dedicated role played by non-designers to be one of the key attributes for a good urban design process which leads to the creation of sustainable urban designs. The author has emphasised the need for the community to have a strong say in the urban design process, thus supporting the argument of Carmona (2014), C. T. Boyko et al. (2006) who feel that ownership of the process, should be given to the community. According to this argument a community should have an influential role particularly in diagnosing the urban environment. BREEAM (2012) has stated; a sustainable urban design process should identify the needs, ideas and knowledge of the local community. Adding to the findings of BREEAM (2012), Bell (2005) also avers that the professional actors should be responsive to the community views and he has suggested providing equal opportunities for the community, including wider stakeholders, to participate in the process and has also specified that professionals should acknowledge their participation. Similarly, Walton et al. (2007) have suggested sustainable urban design stakeholders should have the opportunity to participate in the decision making process. Adding to Walton et al. (2007), Lang (2005) argues that stakeholders should have opportunities for augmentation in the UD process. According to Cooksey and Kikula (2005) stakeholders should have real decision making opportunities rather than being consulted just to get data. C. T. Boyko, Cooper, Davey, and Wootton (2010) maintain that in a sustainable process of urban design the professional actors should understand the views of outsiders. The same authors (C. T. Boyko et al., 2006) have

further emphasised the need for involvement of a broader spectrum of stakeholders in the urban design process Adding to this, Bell (2005) has stated, there should be a cross disciplinary partnership in the urban design process.

Based on these discussions it is clear that two attributes are required for the urban design process to create sustainable urban designs; they are the influential role provided by the community and participatory opportunities provided to a wide range of stakeholders.

As Lang (2005) has described, in an urban design process there should be a leader who can control and manage the UD process; supporting this argument Carmona (2014) has stated there should be a project champion to lead and control the UD process. Similarly, Cooksey and Kikula (2005) have stated that control and efficiency should be maintained in the urban design process. According to Bell (2005) there should be a comprehensive scoping process in the UD process and there should be a leader to comprehensively scope the UD process.

Based on the above stated viewpoints it can clearly be seen that leaderships is another attribute essential to the urban design process.

Fraser et al. (2006) have stated that to ensure sustainability in the UD process it is necessary to assess the local context in a detailed manner using the qualitative facts rather than relying purely on quantitative data. C. T. Boyko et al. (2006) have declared a similar argument and stated that urban analysis should be focused on the local context rather than relying on quantitative methods. Cliff (2014) has also specified a successful urban design process should be community based but should be combined with design principals.

This section indicated another attribute which is a comprehensive urban analysis should be made based on both subjective and objective elements.

As Walton et al. (2007) discuss a sustainable urban design process should provide a pathway to an in-depth understanding of the physical setting and should also appreciate local dynamics such as community values, customs, local history etc. According to Roy and Ganguly (2009) the urban design process should deal with requirements at ground level and in addition Fraser et al. (2006) discovered that capturing locally significant factors is one of the key success factors for a sustainable UD process. Similarly, Bell (2005) has stated that working with local cultures is also a success factor in the UD process.

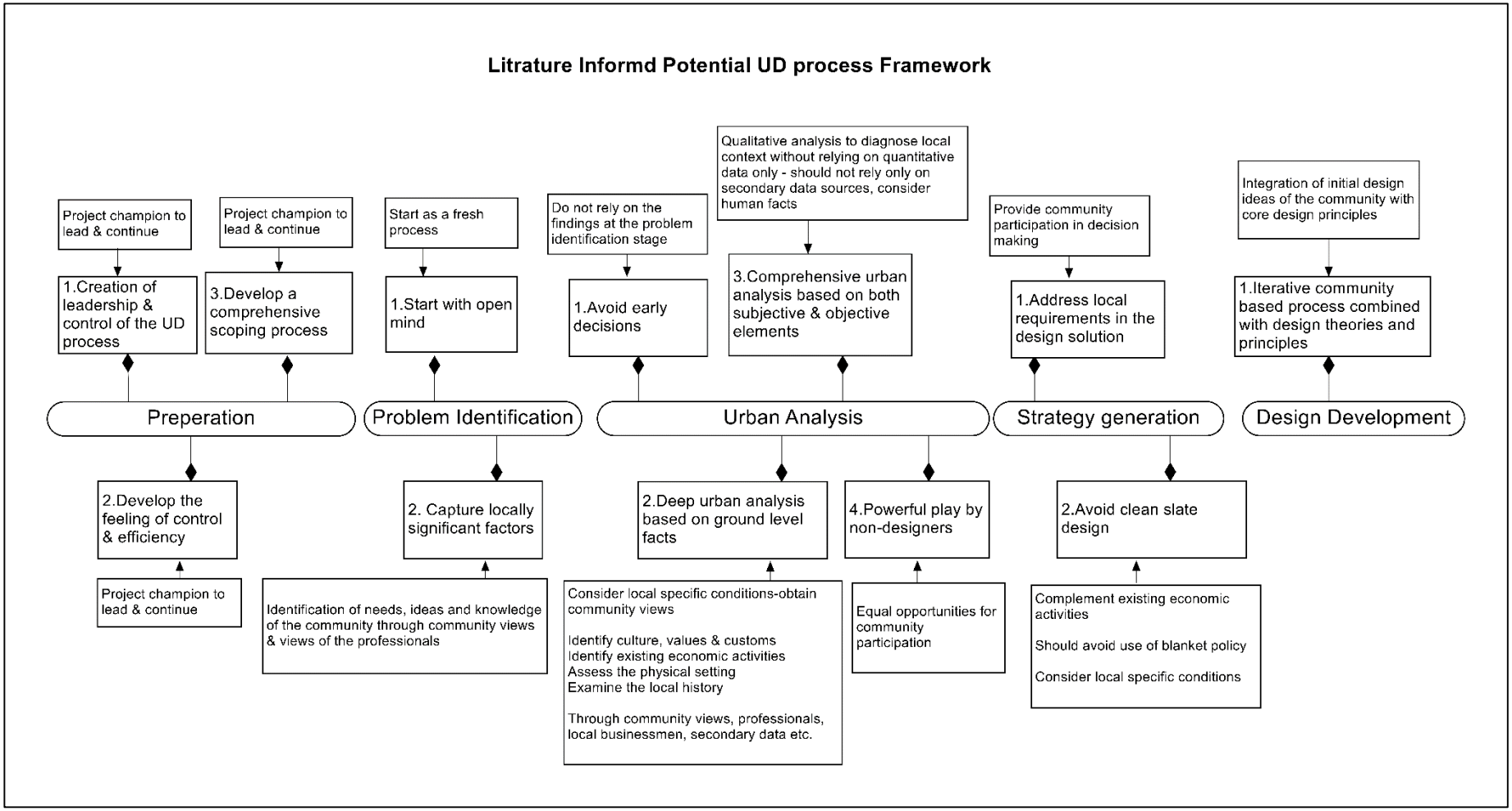
Accordingly, the two other attributes that have emerged from this section are ‘the need for conducting an in-depth urban analysis based on ground level facts’ and ‘the need for addressing local needs in the design solutions’.

Cooksey and Kikula (2005) have argued professional actors should not propose an UD based on pre-determined assumptions of uniformities. He particularly emphasised the need to understand specific local conditions in the UD process. In a similar way, Lang (2005), says that professionals should begin the UD process with an open mind avoiding the use of generalised solutions. The Commission for Architecture & Built Enviornment (2000) has also specified the need for a fresh approach and has stressed the importance of designers avoiding the use of a blanket policy in the urban design process.

The final attribute that has emerged from this section indicates that designers should avoid early decisions in the UD process and should always work according to the nature of the urban entity rather than using blanket policies.

Figure 2.7 presents the literature informed potential urban design process framework,

Figure 2-7-Literature informed potential UD process framework



Section 2.5.7 has explored the literature on the attributes for a sustainable urban design process. Sections 2.5.3-2.5.7 has investigated the need for a new urban design process framework. As justified in the section 2.1, the researcher will develop a new urban design process framework for the creation of sustainable urban designs, and the key factors identified in this section (section 2.5.7) will provide a basis for the development of the framework and a data collection strategy; the literature informed key factors will be particularly assessed against the findings from the study (section 6.3) at the data triangulation stage.

As will be shown in section 3.11 relating to the operational research design, the researcher has used a regenerative design process as a basis for the study. Accordingly, section 2.6 introduces the regenerative design concept.

2.6-REGENERATIVE DESIGN

This section discusses the concept of regenerative design which has been influenced by two key groups of researchers and practitioners. It was first introduced by John Lyle in 1992 and the regenerative design philosophy was progressed at the John T. Lyle Center for Regenerative Studies at California Polytechnic. The second key influence on the regenerative design concept is the work of the Regenesisis Group founded in 1995 and pioneered by Bill Reed. Regenesis based in Santa Fe, New Mexico with offices in Massachusetts and Arizona.

2.6.1- DIFFERENT VERSIONS OF REGENERATIVE DESIGN

2.6.1.1- Regenerative Design for Sustainable Development - John Lyle

Lyle first introduced his concept of regenerative design in his book entitled '*Regenerative Design for Sustainable Development*' ((Lyle, 1996). This proposed regenerative design as a way of making the ecological aspect of sustainable development a key focus. Stahel and Reday (1976) have generated similar ideas to Lyle and more recently MacDonough and Braungart (2002) published a non-fiction book called '*Cradle to Cradle*' which also proposes regenerative design ideas similar to those of Lyle . Lyle's concept of regenerative

design and similar ideas put forward by other authors has been very influential in developing the concept of regenerative design. Summarising the various authors, regenerative design can be defined as a systematic approach which tries to identify and regenerate the ecology of an environment. This method is more natural science oriented and the research in this area includes laboratory experiments that look at generating new, sustainable methods for helping the environment; for example, new, sustainable techniques for growing food, plants, etc. The followers of this concept use the poly technical tradition where laboratory experiments are undertaken on-site.

The followers of Lyle try to solve environmental problems and issues through regenerative design by introducing sustainable technologies which are not only friendly to the environment but also attempt to heal damage that has already been caused to the environment. In general, a regenerative design environment works with nature and follows the rules of nature. The following figure summarises the differences between a typical degenerative system and a regenerative system.

Figure 2-8- A typical degenerative system (Lyle, 1996)

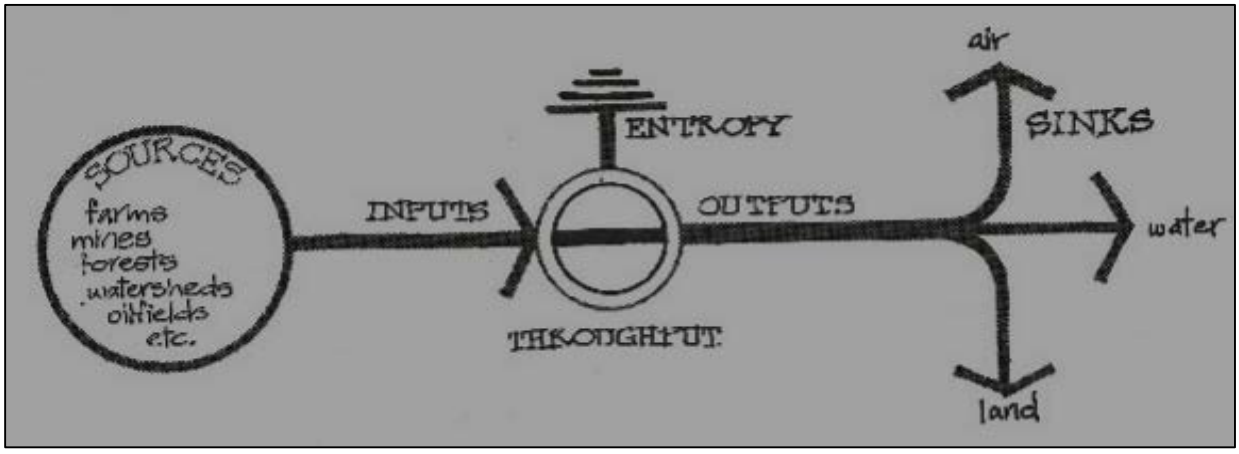
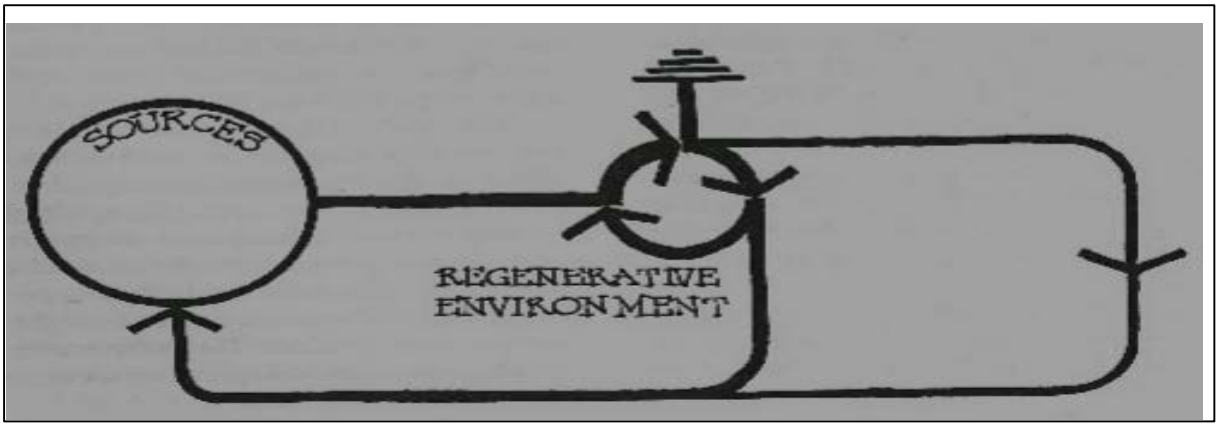


Figure 2-9- A regenerative environment (Lyle, 1996)



As Lyle (1996) states a typical degenerative system is not pro-active in saving the environment. The waste generated in a degenerative system goes back into the land, the air and water on the sink side of the sequence in large quantities. Sinks include the entire atmosphere, most streams, rivers, lakes, bays, estuaries and other wetlands, most groundwater and the multitudinous but relatively small land areas where waste is deposited. The sink side becomes greater than the generation or renewal of natural resources and causes an imbalance in the natural system and degenerates the environment. A regenerative environment works as a whole system and, consequently, a regenerative system can be defined as a *'system which provides continuous replacement, through its own functional processes, of the energy and materials used in its operation'*. Based on this, Lyle (1996) introduces twelve strategies for regenerative design. The key strategies are presented in the following table:

Table 2.4-Statergies for regenerative development (Lyle (1996)

Key Strategies
1. Letting nature to do the work
2. Nature as model and context
3. Aggregating, not isolating functions
4. Optimum level for multiple function
5. Matching technology and need
6. Using information to replace power
7. Multiple pathways
8. Common solutions to disparate problems
9. Storage as a key to sustainability
10. Form to facilitate flow
11. Form to manifest process
12. Prioritise for sustainability

Regenerative design undertaken following this school of thought uses a systematic approach which directly focuses on enviromental sustainability. Many authors emphasise the

importance of understanding the holistic nature of the environment and they have developed strategies to overcome environmental degradation and are inspired to heal degraded environments through the environment itself. Regenerative design (Lyle,1996) and permaculture (Mollison, 1988) have many similarities. Both concepts are concerned with the importance of adopting natural systems in order to achieve sustainability. Both concepts follow the need to maintain ecological health in order to sustain environments but in regenerative design, as Lyle (1996) describes it, is more focussed than permaculture. Permaculture, as the name implies (which shows it is about permanent agriculture), focuses more on agricultural development. It is concerned with agricultural methods which do not harm the enviroment and methods which heal the environment. It encompasses agriculturally based livelihood development; however, regenerative design focuses beyond that to examine alternative approaches to maintaining ecological integrity on a higher level by expanding its scope into landscape design, river bank re-design and building design, etc.

2.6.1.2- Regenerative Design - Integrative Design Collaboration

The latest contribution to the regenerative design concept is an outcome from the work of The Regenesis Group which was pioneered by Bill Reed. This concept applies and integrates regenerative design with the built environment rather than focusing only on natural environmental aspects. The Regenis Group (2011) states that the whole system concept of regenerative design is about understanding how natural ecological systems function and how the built environment and the natural environment can be integrated. This modern version of regenerative design tries to understand place as an integration of the socio-economic and environmental factors of life. This concept challenges current practices in green design and emphasises the need to go beyond the current domain of sustainability. As William and David (2003) state, current practice in green design and building focuses primarily on minimising damage to the environment and human health and using resources more effectively; therefore, this only slows down degradation. Thus, to reduce degradation, a much more deeply integrated system approach is required which is the basis of regenerative design. Furthermore, these authors explain that to design regenerative systems there needs to be a better understanding of the basis for the regenerative capabilities of natural systems and how to diminish man-made activities whilst maintaining quality of life.

As described in the previous section, Lyle (1996)'s concept of regenerative design is focused more on the natural environment but the integrative design approach for regenerative design is a systematic concept which integrates the natural and built environment with the human aspects of it.

The Regenis Group (2012) identifies regenerative design as an approach which consists of the following qualities:

SPECIFIC- Grown from local nature and the local culture of a place.

HOLISTIC- Integrating people and ecological systems for mutual benefit.

BOLD- Manifesting a vision of people as contributing members of nature's family.

Thus, Regenerative Design is entirely based on place and the role of people within it.

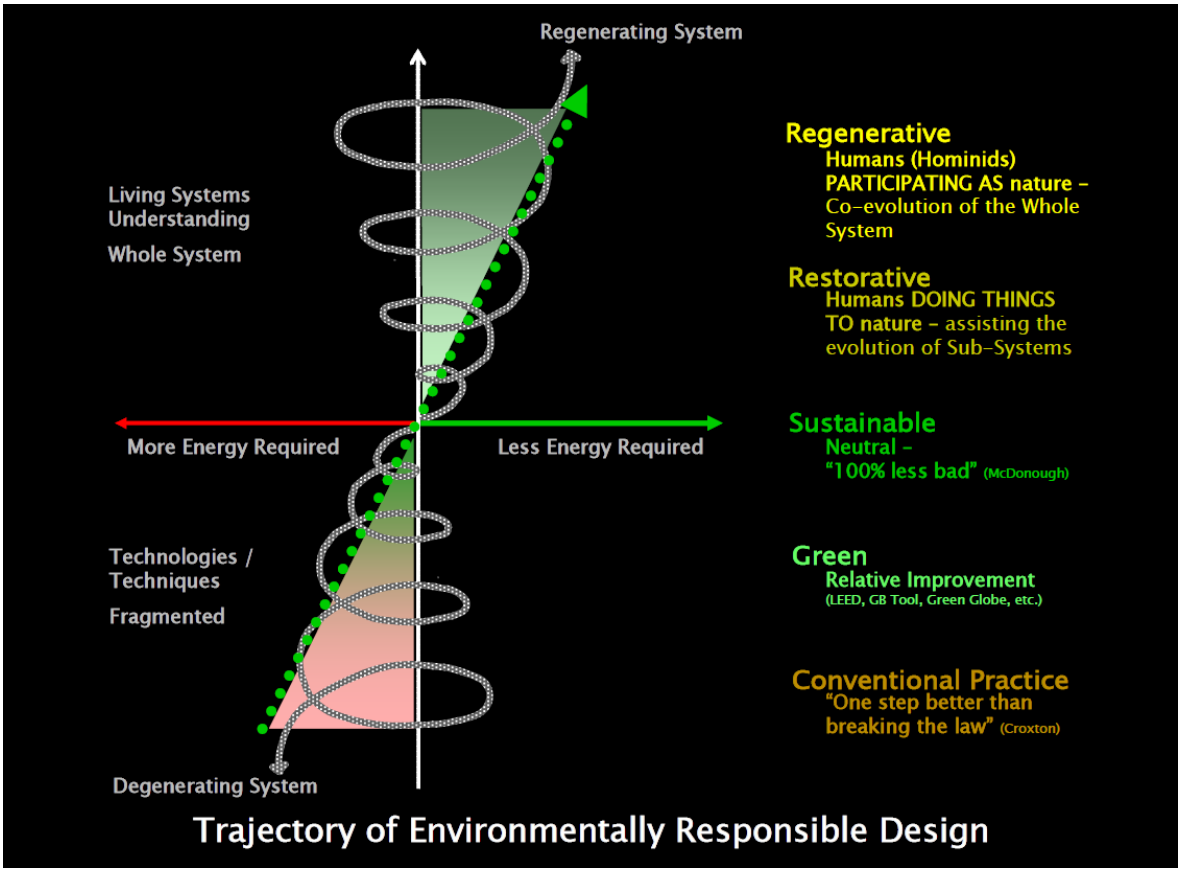
The qualities described above indicate how important it is that regenerative design is linked with the natural and man-made environment. The first conception of regenerative design was linked only with local nature but this integrative approach of regenerative design also considers the cultural aspects of a place. Therefore, this approach integrated people with the ecological system. It attempts to manifest a vision of people considering themselves to be members of natural system(s). Reed (2006) further emphasises that regenerative design is a deeply integrated systems approach to the natural and built environment combined with the social, cultural, economic and environmental life of people.

2.6.2- INTEGRATIVE REGENERATIVE DESIGN FOR SUSTAINABLE DEVELOPMENT

The integrative approach of regenerative design is a design approach which tries to create sustainability in a manner of looking at the built and natural environment, together with its inhabitants, as a whole. Reed (2007a) argues that sustainability is not deliverable as the concept is currently understood. Sustainability is not a 'thing'. Sustainability is not simply about efficient technologies and techniques; it is about life - a process by which living things, such as, forests, neighbourhoods, people, businesses, mushrooms and polar bears ensure their viability over a long period of time. According to the integrative approach for regenerative design, it is important to understand the life of places, which includes the social

and economic life, combined with the natural setting. This integrative regenerative approach combines the principles of the previous regenerative approach (Lyle, 1996) with the social and economic aspects of life. Lyle's regenerative design approach incorporated whole system thinking focussing on the degradation of the natural environment. It provided solutions to overcome degradation while allowing the natural environment to sustain itself. In the integrative regenerative approach the environment is referred to as the 'place' incorporating a combination of socio-economic and natural environment. As Reed (2007a) states an environmentally sustainable place is 100% improved place but it is not the best place; the best place is somewhere which integrates humans as participants of nature. The following model was developed by the integrative design collaborators and it explains where we were, where we are now and where we should be in order to achieve true sustainability on all levels.

Figure 2-10- Integrative Design Collaborative – a summary on where regenerative design stands (Reed, 2006)



This diagram shows how the integrative approach to regenerative design is linked to the concept of sustainability. As Mang (2001) states integrative regenerative design is an

approach that best reflects thinking that will shape the next phase of development within the field of sustainable design. The Regenis Group (2012) state that this concept is linked with the concept of sustainability today; The Regenesis Group states that sustainability requires more than merely adding green components and techniques. Sustainable integration of nature and people into a living system is essential; furthermore, this whole system approach does not leave out green technologies but integrates them in a more meaningful context.

2.6.2.1 - The Principles of Integrative Regenerative Design

The Regenis Group (2011) assert the whole system concept of regenerative design is about understanding how natural ecological systems function and how the built environment and the natural environment can be integrated. Accordingly, the Regenesis Group states that it is important to critically understand two unique systems of place. The first is the ecological system of a place i.e., the natural environment; the second is the cultural system of a place which is associated with the socio-economic life of a place.

Therefore, regenerative design consists of three distinct but overlapping streams of work in order to understand the ecological system and the cultural system:

- Integral assessment: understanding place.
- The story of place: making that understanding comprehensible and transferrable.
- Stakeholder engagement: inspiring the community.

2. 6.2.1.1- Integral Assessment: Understanding Place

Integral assessment is the first, and one of the key, components in the regenerative design process. The Regenesis Group carry out a whole system assessment of a site, which seeks to uncover the larger geographic context and the fundamental patterns of a place. Investigation of the geological, hydrological, biotic and human cultural systems is the basis of understanding the whole system, in which members of the community have a key role to play. The biotic and cultural systems are uncovered not only through secondary data sources but also with the help of community members; community leaders can be the inspirational helpers in uncovering important facts (The Regenis Group, 2012).

Thus, the foremost step in the integrative regenerative design process is associated with community and this indicates the bottom-up principles underlying this approach.

2.6.2.1.2- The Story of Place: Making it Understandable, Comprehensible and Transferrable

A place and a community are often made up of many diverse groups of people with unique histories and viewpoints. But each place also has a unifying context. Regenerative design members attempt to find the unifying context through analysis of scientific data or historical texts alongside the support given by community members (as described in the last section) and then make this unifying context accessible to all community members including the design team.

Through this process, and its adaptation and development, they deliver a story of the place. The story or narrative form creates a sense of identity for the place that the design team members and the stakeholders can engage with and carry forward in order to find specific particulars of the place. Through their engagement with the story of the place the design team members create specific principles and design concepts that:

• Enable different specialists to find their specific niche without losing sight of how their contribution serves the whole and how it is co-dependent on the work of others.

• Ensure that environmental sustainability goals and indicators for the parts (water, energy, etc.) are tied to the desired evolution of the whole system.

• Build a foundation of shared meaning and purpose that supports deep collaboration.

(The Regenis Group, 2011)

As a first step (stream of work) the Regenesis Group conducts an integral assessment in order to understand the place. Some of the tools/outcomes are ecological and cultural data, based on historical reports, etc., but, as stated earlier; this does not ignore the community factor as the various viewpoints of the community members; community leaders etc. are also ascertained. In the second step a story is delivered to the community whereby the community can see how they have perceived the place, what is missing, what is not relevant, etc. Also, this helps to remind the community about the forgotten aspects from the past of the place. The community's memory is refreshed concerning the place and its importance; thus, the

second step of the process again places significant importance on the community and also provides the whole design team with knowledge.

2.6.2.1.3 - Stakeholder Engagement: Inspiring the Community

The next step in the integrative regenerative approach is inspiring the community through stakeholder engagement. This is the community engagement stage where people develop strategies themselves that seek to solve the issues of concern. The Regenis Group (2011) state that each person in a community holds a unique strand that can be woven into the story as a whole. In the first and second steps, Regenesis develops the story of the place by working with the stakeholders. After developing the 'story of the place' (which follows identification and analysis of the issues of the place along with the potential of the place) this stage involves the generation of strategies through stakeholder consultation in order to overcome problems and issues and also to harness potential that has been identified. The Regenesis Group state that this organic engagement process is both educational and inspiring for all involved. The participatory action-research methods used strengthen a sense of stewardship of the place and of the project, reconnecting people to what they care about in their place and their community. Often, the resulting growth in understanding and community support for the project enables a 'community charrette' in which community members become co-creators, shaping a vision by their own distinctive contribution to the project's purpose and/or to the evolution of the place's potential (The Regenis Group, 2011).

When considering the whole process undertaken by the integrative regenerative design approach, it demonstrates a deep-seated adoption of a direct bottom-up process.

2.6.3-INTEGRATIVE REGENERATIVE DESIGN & RESEARCH STUDY

As was discussed in section 2.4, the aim of urban design today is to create sustainable urban environments in all aspects including social, economic and environmental sustainability. It has been shown that the current process of urban design is largely a top down linear process which has its own adverse effects on the potential to deliver a sustainable environment on all three counts of the so called 'bottom-line'. The alternative bottom-up process has also received criticism; therefore, as discovered in section 2.5.6 there is a strong need to develop

a new urban design process framework integrating the positive features of a top-down process and a bottom-up process. But in order to do that a bottom-up process of urban design should be critically evaluated to ascertain its merits and demerits. No such pure bottom-up process exists in the context of urban design although as we have seen there are some examples which have tried to employ some aspects of a bottom-up process. Most of these attempts have had their own limitations, such as, modifying decisions made at the top level rather than truly engaging with the community to design the place. As discussed, the integrative approach to regenerative design seeks to employ a bottom-up whole systems approach that addresses sustainability on all three counts. The Regenesis Group has successfully applied this concept to some agricultural development projects, housing development projects as well as some general development projects. As shown in section 2.6.2 the integrative approach to regenerative design employs a truly bottom-up process which starts with community engagement, continues and ends with the community engagement; employing the community in each and every step of the process. The ultimate aim of this concept is to create sustainable environments on all three counts, i.e. social, economic and environmental sustainability. Therefore, this bottom-up process seems to provide the basis of a good solution in order to assess the features of a bottom-up urban design process.

2.7- THE OVERALL RESEARCH GAP

This literature synthesis revealed that the current scope of urban design is the creation of sustainable places on all three fronts; social, economic and environmental sustainability. The literature synthesis in section 2.4 revealed, in detail, the current scope of urban design while explaining the different traditions of urban design scopes held from the beginning of the discipline. Even though urban design has a broader scope today, to achieve sustainability, the urban design process is often top-down and has failed to achieve sustainability in many instances. The top-down urban design process often takes early and high-level decisions which do not address the ground level needs or consider the unique features of the locality, which can be utilised for social, economic and environmental enhancements. However, as discovered in section 2.5.3, the top-down urban design process helps in effective decision making and ensures that urban design projects are completed within the required time frames. As described in section 2.5.4, authors and researchers have suggested a bottom-up urban design process which is based on community engagement and empowerment. As explained in section 2.5.4 the bottom-up process is aimed at the community, and therefore, community

needs are addressed in the urban design solutions. Furthermore, as discovered in section 2.5.4 the bottom up process helps to acknowledge unique features of the locality and utilise them for the betterment of the society. Accordingly, it is clear that a bottom up process helps to achieve sustainability on all three fronts. However, as stated in section 2.5.5, the bottom up process has disadvantages; mainly it is time consuming and urban designers have less control. Therefore, as discovered in section 2.5.6, there is a need to introduce a combined urban design process which emphasises community engagement while allowing urban designers to keep control of the project. In order to do this the current top-down urban design process should be evaluated while also evaluating features of a bottom-up process. Since no pure bottom-up process exists in urban design, any bottom-up process which currently exists and is used in a similar context should be evaluated. Accordingly, the researcher used an integrative collaborative approach for regenerative design as a basis for the study to evaluate the features of the bottom-up process (see section 2.6.2 and 2.6.3 for details on regenerative design).

Accordingly, the overall research gap that has been revealed is that there is a need to replace the current process of urban design and to introduce a more community oriented and balanced urban design process to achieve the current scope of urban design which is the social, economic and environmental sustainability.

2.8- SUMMARY OF THE CHAPTER

The first few sections of this chapter provided the background literature synthesis for this study. The origin and background of urban design was explained, following which, urban design was distinguished from urban planning. Subsequently, seminal work on urban design was explored while also exploring the development of the current scope of the urban design. Thereafter, the current process of urban design was explored including any implications and a further discussion took place about the bottom-up urban design process and its implications. The need for a new urban design process framework was explored along with the important attributes of a sustainable urban design process. Finally, literature was examined on the regenerative design process that was used as a basis for this study.

Chapter 3 RESEARCH METHODOLOGY

3.1- INTRODUCTION

The research context, problem, aim and objectives were set out and established within chapters one and two of this thesis. Accordingly, this chapter concentrates on establishing and justifying the appropriate methodology for this research. The chapter is structured as follows:

- Firstly, the onion methodological framework is discussed as a basis for identify the applicable philosophical stance, approach and techniques related to this research.

- Secondly, the details of the five main elements of the onion methodological framework is discussed while discussing the operational issues of the research

- Thirdly, the issues related to the data analysis and presentation are discussed

- Finally, the reliability and validity issues are discussed towards the end of the chapter.

3.2- METHODOLOGICAL FRAMEWORK

As Creswell (2009) discusses, research methodology is a systematic approach which can be adopted to accomplish the research aim. Furthermore, he elaborates that research methodology provides the tools required to complete the research successfully. Wisker (2008) identifies research methodology as the rational and the philosophical assumptions underlying a particular study and she elaborates that research methodology informs the research methods and various aspects which govern the research. Remenyi (1998), further emphasises that research methodology can be represented as a procedural framework within which the research is designed and executed.

Understanding the composition of a research methodology is vital to achieve the appropriate alignment between the selection of the appropriate methodology and the issues being investigated. Hence, a large number of methodological frameworks have been developed; but the methodological frameworks, which are known as ‘onion methodological framework’

and ‘nested methodological framework’, are very popular among researches as these two methodological frameworks cover most aspects of research methodologies. The onion methodological framework was introduced by Saunders et al. (2007) and the nested methodological framework by Kagioglou et al. (1998). The elements of both methodological frameworks are illustrated in figures 3.1 & 3.2.

Figure 3-1-Research Onion-(Saunders, Lewis, & Thornhill, 2007)

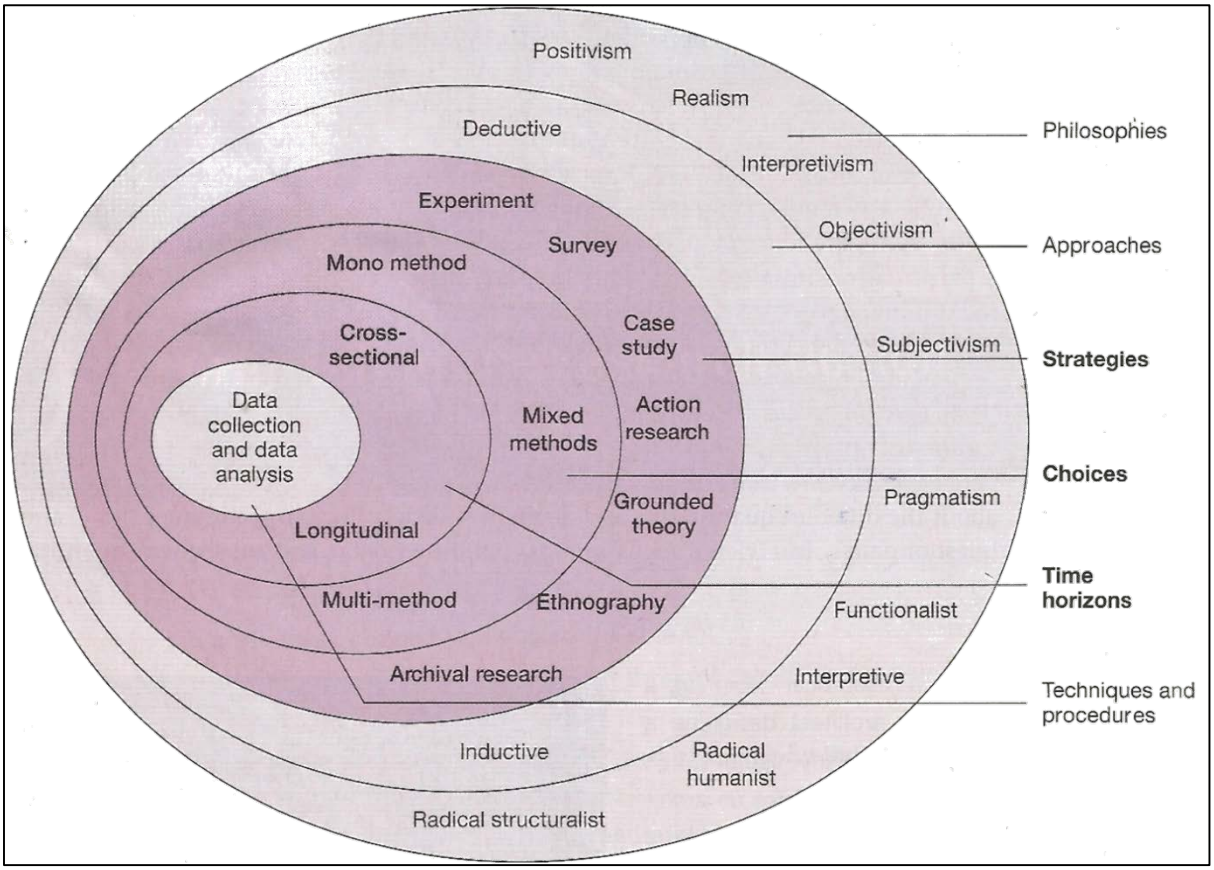
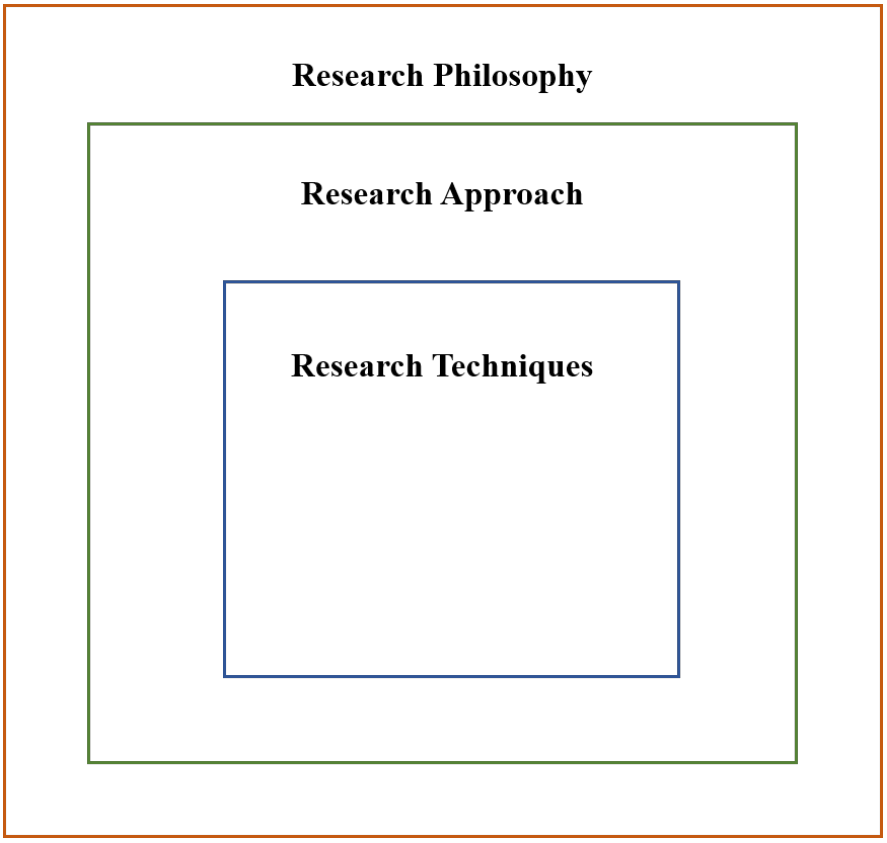


Figure 3-2-Nested Methodological Framework



The research onion consists of six steps which are; research philosophy, research approaches, research strategy, research choices, time horizons and data collection methods whereas the nested methodological framework is comprised of only three steps; research philosophy, research approach and research techniques. Both research frameworks identify establishing the philosophical stance as the first step towards establishing a methodology for a particular research project. According to the nested methodological framework (Kagioglou et al., 1998) the second stage is the research approach, whereas Saunders et al. (2007) show same as the second stage in the onion model. According to Saunders et al. (2007) the research approach is mainly for identifying the development and use of theories during the research process, either by employing an inductive process or a deductive process. Kagioglou et al. (1998) use more or less the same method for the research approach stage. As the third step Kagioglou et al. (1998) discuss research techniques, which include; interview, questionnaire, secondary data etc. However, Saunders et al. (2007) discuss a further three steps before introducing research techniques, which comprise; research strategies, research choices and time horizons. Accordingly, in this study, the researcher finds the onion methodological framework is more comprehensive as the additional three steps help the researcher in the

development of the methodology. Therefore, this study employs the onion methodological framework.

3.3 RESEARCH PHILOSOPHIES

According to Wisker (2008) the way the researcher sees and believes the world to be and the way the researcher understands the world determines the research philosophy. Furthermore, as the she states the information the researcher wishes to discover and the ultimate outcomes of the research also determine the research philosophy. According to Easterby-Smith, Thorpe, and Lowe (2002) , there are three key reasons which indicate the importance of understanding the philosophical issues when conducting a research, the three key reasons are:

- Firstly, it helps to clarify the research design.
- Secondly, it helps the researcher to identify which research designs will work and which research designs will not work under the given circumstances of the research in question.
- Finally, it helps the researcher to identify and create a research design which may be outside his past experience.

The argument of Creswell (2007) is that examining different philosophical views is vital and must be carried out at the initial stage of the study. The investigatory process of research is often influenced by the assumptions that the researcher brings to the research process. As Creswell (2007) highlights, that these assumptions, carried by the researcher, form the 'research paradigm' within which the researcher operates. Accordingly, Creswell (2007) introduces three main research philosophies: Ontology, Epistemology and Axiology. These three philosophies are discussed in section 3.3.1

3.3.1 ONTOLOGY, EPISTEMOLOGY AND AXIOLOGY

Creswell (2007) describes ontology, epistemology & axiology as follows:

- Ontology explores the nature of reality

- Epistemology explores the relationship between the researcher and that being researched
- And, finally, axiology explores the role of values.

Similarly, as highlighted by Miles and Huberman (1994), the general definitions for these three philosophies can be explained as follows:

•Ontology describes “what knowledge is” and assumptions about reality.

•Epistemology describes “how we know it” and assumptions about how knowledge should be acquired and accepted.

•Axiology explains “what research values go into it” and the assumptions about value systems.

To elaborate, according to Grix (2001) ontology is the image of social reality upon which theory is based and epistemology is concerned with the theory of knowledge.

In a research study the ontological assumptions, epistemological assumptions and axiological assumptions are generally inter-connected and can be identified as the characteristics of the research philosophy. According to Morgan and Smircich (1980), the relationship between the above characteristics are such that ontological foundations generally govern and decide the epistemological and axiological foundations of a study.

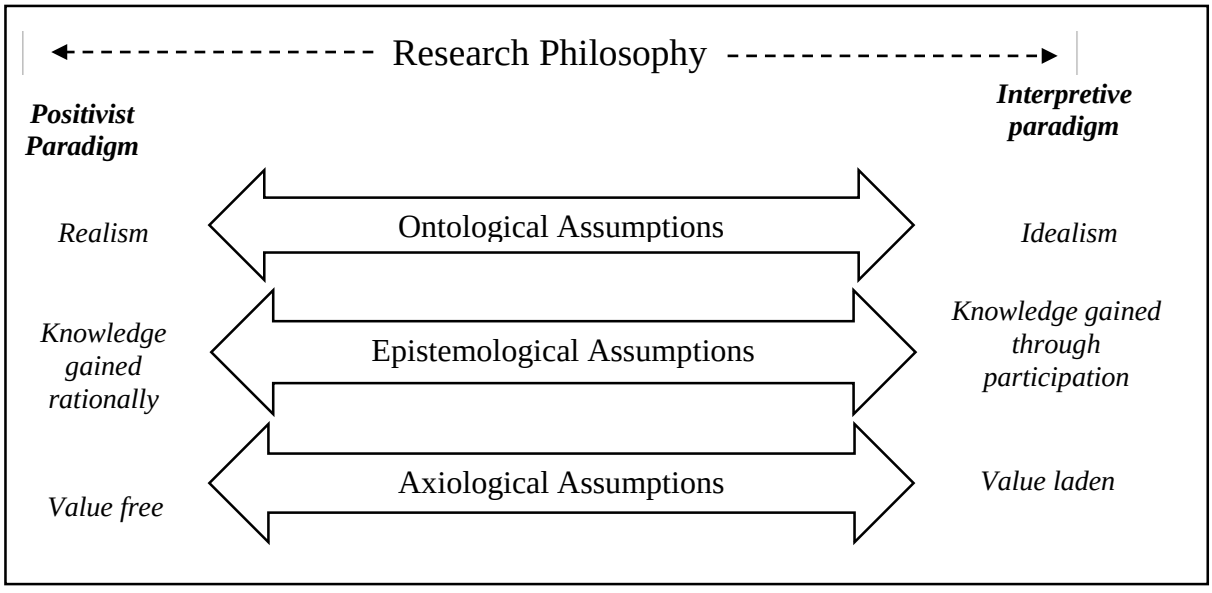
3.3.2 RESEARCH PARADIGMS

In developing a research methodology the ontological, epistemological and axiological positions, along with the continuum of these models, helps the researcher to position the research in the correct place. Accordingly, Easterby-Smith et al. (2002) present contrasting ends of the philosophical traditional continuum, i.e.; the positivist paradigm and the interpretive paradigm. Wisker (2008) states that different terminologies are used different authors in order to identify the interpretive paradigm; for example, some authors use the term ‘constructivism’ and others ‘phenomenology’.

3.3.2.1- Positivist paradigm vs the interpretive paradigm

The ontological, epistemological and axiological philosophies can be represented in a continuum where the two extremes are positivism and interpretivism. In the ontological philosophical stance the positivist argues that the world exists externally and its properties should be measured through objective methods. The interpretivist argues that reality is not objective and exterior, but is socially constructed and given meaning by people (Easterby-Smith et al., 2002). Accordingly, they introduces the positivist paradigm as realism and the ontological paradigm as idealism. Furthermore, as Easterby-Smith et al., 2002 state, the positivist carries an epistemological assumption that knowledge is only significant if it is based on observations of this external reality whereas, according to the interpretivists epistemological assumptions; knowledge is subjective. This indicates, that in the positivist paradigm, knowledge is gained rationally while in an interpretivist paradigm; knowledge is gained through participation. Also, as the authors state the positivist assumes that research is value free and unbiased axiologically, but the interpretivist believes, axiologically, that any particular research is value laden and biased. Based on this clarification figure 3.3 illustrates the research philosophies in the continuum,

Figure 3-3- Research philosophy in the continuum



In addition, between the extreme ends of the positivist paradigm and interpretive paradigm other research philosophies which can be placed. As Creswell (2007) highlights,

postsitivism is closer to the extreme end of the positivist paradigm and he describes postsitvists as conducting research in logically related sequential steps. The same author describes social constructivism as closer to the extreme end of the interpretive paradigm, and as in the interpretive paradigm, they rely on subjective meanings which are negotiated socially and historically.

3.3 PHILOSOPHICAL STANCE OF THIS RESEARCH

Based on the above discussion it can be noted that each research philosophy can be placed in a unique position along the philosophical continuum. As Wisker (2008) highlights, because each research has its own philosophy the researcher needs to determine which philosophical paradigm best fits with the researchers' own research. Therefore, it is important to establish the philosophical stance of the research based on its underlying assumptions. As such, the ontological, epistemological and axiological stances of this research provide the basis for establishing its philosophical stance.

3.3.1- Ontological Assumptions

Ontologically, this research leans more towards idealism. In this research study the researcher seeks to develop a new urban design process framework by evaluating the current top-down urban design process and also by using the regenerative design process as a basis for the study. Therefore, the knowledge concerned in this research is 'an urban design process based on the concept of regenerative design and current top-down urban design processes. This knowledge is not externally created but is a creation of the social, economic and environmental facts that we see in our day to day life; which means the knowledge is socially constructed. Furthermore, this knowledge cannot be measured using fixed variables such as objective methods. Also, knowledge for urban design is generated through people, how they perceive their urban environment and how they are actually a part of the urban environment. Furthermore, the regenerative design process in question is a bottom up process where meaning is imparted by the people involved. Conversely, this research accepts that reality remains subjective and represents the interpretation and interaction between the community and the wider stakeholders.

3.3.2 Epistemological Assumptions

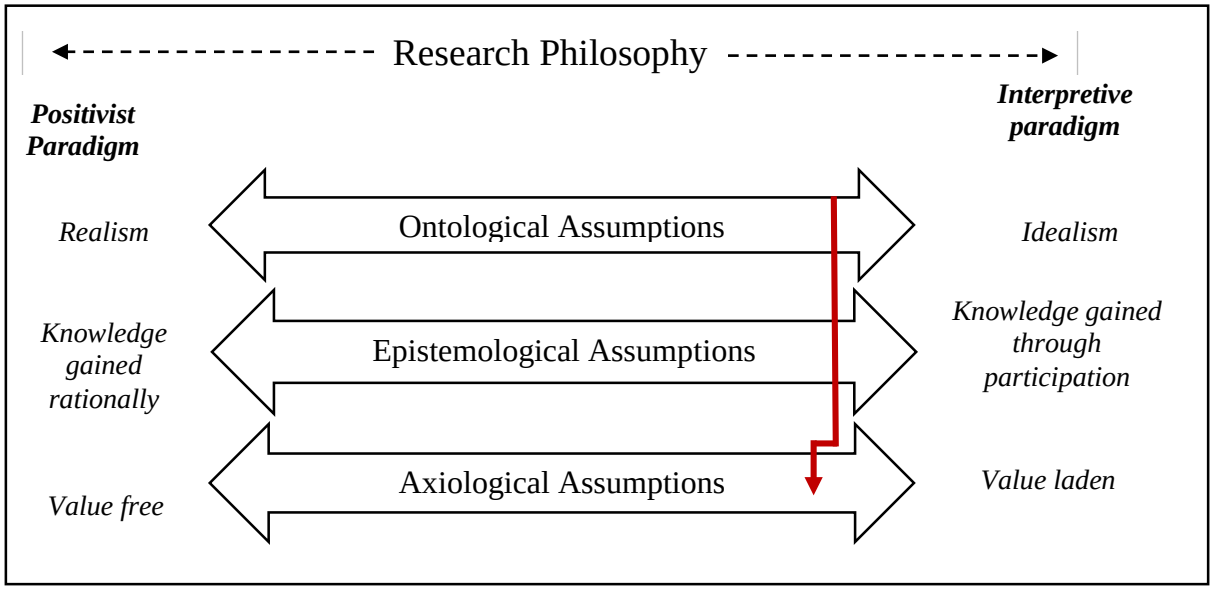
As described earlier this research study is about evaluating the regenerative design concept and the current top down urban design process in order to develop a new urban design process framework. Accordingly, knowledge should be acquired through participation in the ostensible urban design process. Such knowledge cannot be obtained externally, by rational means, without being an internal part of the issues to be addressed. Accordingly, the knowledge acquired in this research becomes a social construction. Furthermore, participatory knowledge acquired from society is, essentially, subjective. The knowledge gained from society becomes essentially subjective, as the knowledge is dependent upon the perceptions of people, who are themselves, dependent on a range of socio-economic and cultural factors. Accordingly, this research leans more towards the extreme end of interpretivism which believes knowledge is a social construction.

3.3.3 Axiological Assumptions

This research study uses the concept of regenerative design as a basis for the study to develop a new urban design process framework; this indicates that the researcher already believes that the regenerative design process is a good design process for urban design. Therefore, this research study mostly leans, axiologically, towards interpretivism where decisions are value laden. Furthermore, the subjective data obtained in the study are value laden as all subjective data are encrypted by peoples' personal beliefs, and in addition, the researcher's personal beliefs also affect how subjective data is perceived. However, the researcher seeks to critically evaluate the concept of regenerative design in order to develop a new process framework, which means the researcher, axiologically, believes that the research outcome should be tested in order to deliver an independent outcome from the researcher's initial belief. Therefore, even though the research leans more towards interpretivism, axiologically, the research stance is not at the extreme end of interpretivism.

Figure 3-4 represents the philosophical stance of this research with respect to the research philosophies continuum described earlier.

Figure 3-4-The philosophical stance of the research concerned within the research philosophies' continuum



In addition to the above, this research involves the study of complex interactions between community, builders, and politicians involved in the urban design process in a real-life setting. The study is largely context specific, demanding a focus on in-depth studies of small samples within uncontrolled environments. The objectives of the study, such as the identification of key factors in the urban design processes, demand that this research be more exploratory, rather than explanatory, in nature. Therefore, the nature of the research further justifies the establishment of its research philosophy within the interpretive research paradigm.

The next section focuses on the second step of the onion model, establishing the appropriate research approach for this research, which is guided by the interpretive research paradigm.

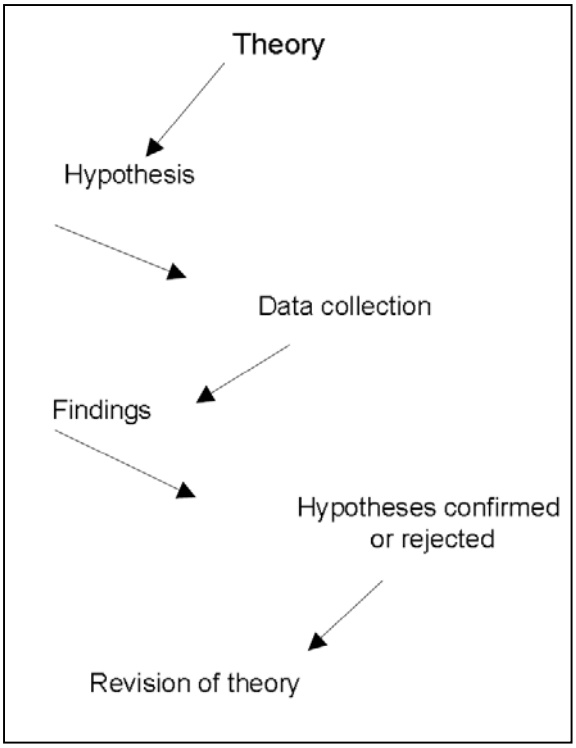
3.4 THE RESEARCH APPROACH

The term 'research approach' has been used within research methodology literature to represent different aspects. According to Easterby-Smith, Thorpe, and Jackson (2012), the research approach is concerned with organising research activities, including the collection of data, in ways that are most likely to achieve the research aims. In the nested methodological framework (Kagioglou et al., 1998), the term research approach is used to indicate the ways of conducting research, such as, surveys and case studies; but the argument

made by Saunders et al. (2007), who developed the onion methodological framework, emphasises that there are additional layers which should be included between research philosophy and techniques and procedures, and therefore, 'the ways of conducting research' are represented in one of the additional layer. Accordingly, Saunders et al. (2007) highlights the research approach as the stage which determines whether the research is inductive research or a deductive research.

Given that the researcher is following the onion methodological framework the researcher has identified the term 'research approach' as the stage to decide whether the research is inductive or deductive. As Bryman (2012) highlights, the deductive approach is heavily reliant upon testing a theory and generating the research from the general to more specific. Supporting the viewpoint of Bryman (2012), Saunders et al. (2007) have stated the deductive approach is theory testing whereas the inductive approach is characterised by building a theory and is generated by the research; from specific and close understanding of the research context to a more general understanding. The process of a deductive research approach, as explained by Bryman (2012), is presented in the figure 3.5.

Figure 3-5- Deductive research, (Bryman 2012)



Accordingly, this research seeks to develop a new urban design process framework to create sustainable urban designs. The process framework, that is expected to be developed, is a guiding strategy for urban designers and planners, suggesting what should be done at each stage of the urban design process and how each of the tasks should be performed. In fact, this indicates that this research is building a theory for urban design; therefore this research mainly becomes inductive research. However, to build a new theory the researcher is testing two already established theories. On one hand the researcher is evaluating the current top-down urban design process to identify its key factors. The current urban design process is an already established theory; therefore, in that sense, the research becomes deductive. On the other hand the researcher evaluates the regenerative design process in order to identify the key factors to be adapted to develop a sustainable UD process framework. Accordingly, even though the regenerative design process has never been employed in the urban design context, the concept has already been developed, therefore, once again, the researcher is testing an already established theory, and in that sense, the research becomes deductive. As explained above the researcher is testing the theories not to revise them but to build a new theory, therefore, this research become mainly inductive. However, as Kenneth (2000) states a qualitative researcher can use both deductive and inductive approaches.

In addition, a number of researchers have identified another research approach called abduction in order to describe design research studies which have both deductive and inductive features. As Saunders, Lewis, and Thornhill (2012) describe, abductive reasoning provides a pathway for back and forth strides between theory and data throughout the course of the research process culminating in either the creation of new theory or the modification of an existing theory, and clearly, this applies to the current project.

3.5 THE RESEARCH STRATEGY

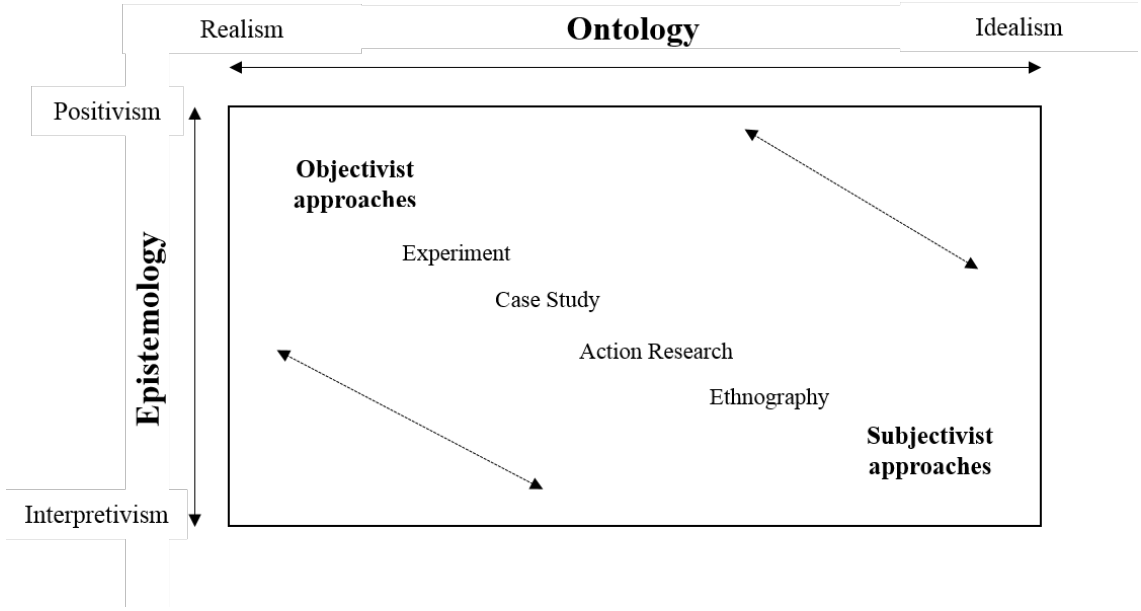
The focus of the research approach is represented by the research strategy. As Saunders, Lewis, and Thornhill (2009) highlight, the research strategy should be carefully designed in order to determine whether the selected research strategy enables the researcher to answer the research question or to achieve the research objective. Similarly, as introduced in the ‘onion’ model (Saunders et al., 2007) the research strategy determines the ‘ways of conducting research’. Accordingly in this section, the researcher first introduces different research strategies, and

thereafter, the particular research strategy used in the research study and why that particular strategy has been used in the study.

3.5.1- TYPES OF RESEARCH STRATEGIES

Denscombe (2010) states there are five different types of research strategy; they are ethnography, action research, cases study, phenomenology and grounded theory. Sexton (2003) perceives the ways for conducting research as another continuum, within which the position of each and every strategy is determined by its philosophical stance. This continuum is presented as below:

Figure 3-6- Research strategy in the continuum- Sexton (2003)



As Sexton (2003) notes, experiments are at the extreme end of the objectivist paradigm, ethnographic research is at the extreme end of the subjectivist paradigm and case study, along with action research, lie in between. As Luzzi (2014) describes, experimental research is mostly conducted in laboratories in the context of basic research. The principle advantage of experimental design is that it provides the opportunity to identify cause-and-effect relationships. As Creswell (2007) discusses, ethnography is appropriate when there is a need to understand the local cultural or ethnic context and behaviour over a prolonged period of time within a natural setting; in ethnography the researcher becomes a part of the natural setting. The next type of research strategy, as explained by Sexton (2003), is the action research strategy. Action research has some common features with ethnography, but it is

different from ethnography, in that the researcher becomes part of the setting with the goal of changing the status quo of the situation by changing the attitudes, or the behaviour of the participants, rather than understanding their behaviour in a natural setting. Sexton (2003) presents case study as another research strategy which Yin (2009) defines as:

> *'An empirical inquiry that investigates a contemporary phenomenon, in depth, and within its real life context, especially when the boundaries between the phenomenon and the context are not clearly evident*' (*Yin, 2009:18*).

There are three main types of case study research namely; exploratory, descriptive and explanatory case studies. Exploratory case studies allow the researcher to carry out field work before data gathering and prior to understanding the research problem. Descriptive case studies require a descriptive theory. While explanatory cases studies seek to make generalisations by extrapolating the case study findings to other cases. (Yin, 2009).

Saunders et al., (2007) add grounded theory and archival research as two other strategies which can be placed within the interpretivist's research paradigm. Grounded theory is an approach to discover an emerging theory, grounded in data, where the research problem emerges from the first level of primary data analysis (Glaser & Strauss, 1967). As Creswell (2007) points out, grounded theory is particularly useful to predict and explain behaviour, focusing on theory building. As Starks and Trinidad (2007) believe, grounded theory is ideal for when a researcher is in a situation that is perfect for understanding social processes and these social processes have structures, implied or explicit codes of conduct and procedures that circumscribe how interaction unfolds. Saunders et al. (2009) point out that, in archival research, administrative records and documents are used as the main source of data, and therefore, archival research is suitable when the focus of the research is the investigation of the past and changes overtime.

3.5.2- RESEARCH STRATEGY FOR THE STUDY

In the previous section, the researcher introduced different research strategies into the discussion. In this section the researcher seeks to discover the best research strategy for this study and to explain why and how the selected research strategy is more appropriate than the other research strategies.

As Luzzi (2014) stated, experimental research is conducted mostly in laboratories in the context of basic research. Adding to the discussion of Luzzi (2014), Saunders et al. (2007) stated that experimental research owes much to natural sciences although it features greatly in much social science research. Accordingly, Saunders et al. (2009) describe the purpose of experimental research to be the study of casual links; whether a change in one independent variable produces a change in another dependent variable. The principle advantage of experimental design is that it provides the opportunity to identify cause-and-effect relationships. As we have already discovered this research study leans more towards idealism, and therefore, this study does necessarily study a cause effect or a relationship between two dependent and independent variables. This study focuses on developing a new, community embedded, urban design process by evaluating two different urban design processes neither of which is dependent on the other urban design process. Furthermore, the research question to be addressed is an outcome of a social participatory process rather than a process which can be represented in a laboratory environment; therefore, undoubtedly, the experimental research strategy is not the appropriate research strategy for this study.

As stated by Burns (2000), an ethnography approach is better suited to understanding the reasons for the behaviour of the subject over a prolonged period of time within a natural setting. Furthermore, in ethnography the researcher becomes a part of the natural setting. As justified in section 1.2 the researcher seeks to build a new, community embedded, urban design process framework by employing both the current urban design process and the regenerative design process. Accordingly, to explore the deployment of both these processes, ethnography would have been a very effective strategy as it allows the researcher to gain a deep understanding of the context through being a part of it. However, in ethnographic research the researcher should be part of the natural setting for a prolonged period of time. This is not possible with this research study for two reasons; firstly, the researcher will be working within two live projects that will be implemented by local authorities (in the UK), and therefore, the researcher has to align with the timelines of two local authority programmes and, secondly, the researcher needs to meet the deadline for his PhD study. Both these constraints prevent the deep involvement required in ethnography and therefore, ethnographic research is not suitable for this study. For similar reasons, action research is not suitable for this study and as stated by Sexton (2003), action research is conducted when the researcher has the goal of changing the core status. However, in this research, the researcher seeks to employ the regenerative design process and the current top down urban

design process in two environments, but does not necessarily wish to change people's perceptions, in fact, the researcher wants to understand the urban design processes from their perspective and by their behaviour, therefore, action research also is not an appropriate research strategy for this study.

The research strategies that remain are; archival research, grounded theory and case study research. From the three research strategies remaining, archival research is suitable for investigating the past and changes overtime as stated by Saunders et al. (2009); therefore archival research strategy is not appropriate for this study. Accordingly, it is necessary to investigate whether either grounded theory or case study research strategy, or a combination of both strategies, would be an appropriate research strategy for this study.

3.5.2.1- Case study as a research strategy

As Denscombe (2010) describes, the case study approach helps the researcher to examine the phenomenon to be studied in a real life situation. It also provides a platform for the researcher to obtain a clear picture of relationships and processes within phenomena. Accordingly, in this research study the researcher seeks to evaluate phenomena in a real life situation. The researcher seeks to evaluate both top-down and bottom-up processes in real life projects where occurrences happen naturally and are not planned for research purposes. Furthermore, as established in section 1.4, the researcher aims to discover the key factors from both the top-down and bottom-up processes; accordingly it becomes an investigation of relationships and processes within the phenomena. Furthermore, as stated by Yin (2009), the case study approach should be used when questions arise such as how and why. The researcher has the same questions about the urban design process; 'Why' a new, community embedded, urban design process is required, and if so, 'How' a new, community embedded, process can be developed for urban design? Also, as stated by Creswell (2007):

> *'Case study research is a qualitative approach in which the investigator explores a bound system which investigates a bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audio-visual materials, and documents and reports, and reports a case description & case based themes .'* (*Creswell, 2007 :73*)

Similarly, in this study the researcher investigates two bounded systems which are known as; the ‘top down urban design process’ and the ‘regenerative design process’. Furthermore, due to the nature of the study the researcher is required to collect data from professionals who practice urban design, the community, other stakeholders and also secondary data sources which explain the urban design processes undertaken in the cases; or in other word in-depth data collection using multiple sources. In addition, as stated by Creswell (2007), the research will report case descriptions and case based themes identifying the key factorkey factorsfor both top-down and bottom-up urban design processes. As stated by Saunders et al. (2007), case study research allows triangulation of data in order to ensure that the issues emphasised in one data sources are represented in the data collected from other data sources. Accordingly, in this research, in order to develop a ‘community embedded balanced urban design process framework’ the researcher needs to identify the KFs from both top down and bottom up processes by employing both processes in an urban design project environment; but to ensure the research question ‘can a community embedded balanced urban design process create sustainable urban designs?’, is answered the researcher needs to triangulate the findings with literature and also with the opinions of the experts. Therefore, because the researcher essentially needs to triangulate data the case study research strategy is helpful. Accordingly, considering all the circumstances brought to this discussion, it can be noted that a case study research strategy will provide a lead for focusing the study.

3.6- RESEARCH CHOICES

The fourth layer in the ‘onion’ model (Saunders et al., 2007) concerns research choices. Research choice is the act of selecting the techniques and procedures to be adopted to collect and analyse data relevant to the research topic. In this regard there are two main alternatives which can be classified as quantitative and qualitative. According to Bryman (2012), the quantitative method entails the collection of statistical data and positions the researcher as an independent observer; this is also known as the scientific method. Similarly, Saunders et al. (2009) explain that the term “quantitative” is predominantly used to refer to any data collection technique, or data analysis technique, which generates numerical data. They state that data collection techniques such as ‘questionnaire’ and data analysis procedures such as ‘graphs or statistics’ can be treated as quantitative data collection and analysis techniques.

Sutrisna (2012) states that the qualitative method tends to be concerned with words rather than numbers and observed reality will be related to the researchers' interaction with phenomena. Agreeing with Sutrisna (2012) point of view, Saunders et al. (2009) propose that data collection (e.g. interviews) and data analysis (e.g. content analysis) techniques, which generate non-numerical data, can be categorised under the term "qualitative".

As discussed by Saunders et al. (2009) research choices can primarily be categorised into two sections: mono methods and multiple methods. If the researcher seeks to employ a single data collection and a single analysis procedure to answer the research question, then the research is a mono method study and if the researcher seeks to employ more than one data collection technique and analysis procedure the research becomes a multiple method. Teddlie and Tashakkori (2003) state, even though a researcher uses the multi-method it is still restricted to either a qualitative or quantitative worldview. For example, if researcher uses in-depth interviews and diary accounts using non-numerical procedures then the research can be recognised as multi-method qualitative study, on the other hand, if the research is collecting data using more than one method and analyses it using statistical procedures then the research can be identified as multi-method quantitative study. Saunders et al. (2007) argue that there may be some research studies where the researcher needs to collect data and analyse data by using both quantitative and qualitative techniques and procedures, therefore, they introduce this type of research study as mixed method research.

However, the use of mono method, multi method or mixed method is determined by the nature of the study. As stated by Saunders et al. (2007) positivists tend to use more quantitative research choices whereas social constructionists favour qualitative research choices. Sutrisna (2012) describes the quantitative method as repeatable and capable of isolation from reality without compromising the cause and effect relationship being investigated; whereas qualitative research is focused on revealing the qualities of phenomena rather than their static measurement. As we have already discovered, this study leans towards idealism, which believes in social constructivism rather than the positivism. Furthermore, the study involves an investigation of peoples' perception about the urban design process which is subjective and bounded by the values of the people involved. If the peoples' perceptions are quantified, especially in the data analysis, the real meaning, given by the people, about the phenomenon may be ignored if it is not proved by the quantitative techniques. Accordingly, the real meaning of the environment can be isolated and ignored.

Therefore, as this research leans towards idealism and taking into consideration the nature of the study, discussed above, employing a qualitative research method is ideal for this study.

As Teddlie and Tashakkori (2003) highlight, multiple methods are useful for answering the research question as multiple methods provide better opportunities to understand the context from different perspectives. Bryman (2006) states, mixed method provides a wealth of data which helps to understand the context from different perspectives. Bryman (2006) introduces seven advantages of a multi-method research and two of them are extremely important in this research context. As he stated one of the key advantages of the multi-method is the provision of opportunities for data triangulation. Accordingly, in this research the researcher is evaluating the top-down and bottom up processes of urban design to build a balanced urban design process framework; once the initial process framework is developed the researcher needs to test its validity by triangulating data from literature and also from experts in this field of work. On the other hand this kind of social phenomenon cannot be investigated by using a single data collection method, the researcher may need to interview people and as the researcher may need to conduct several focus group discussions the use of a multi method best suits this particular research.

Accordingly, the research choice of this study is the qualitative multi method.

3.7- TIME HORIZONS

The influence of time is an important aspect for a successful research design. As highlighted by Easterby-Smith et al. (2012) there are two types of research based on their focus on the time line:

1. Cross sectional studies
2. Longitudinal studies.

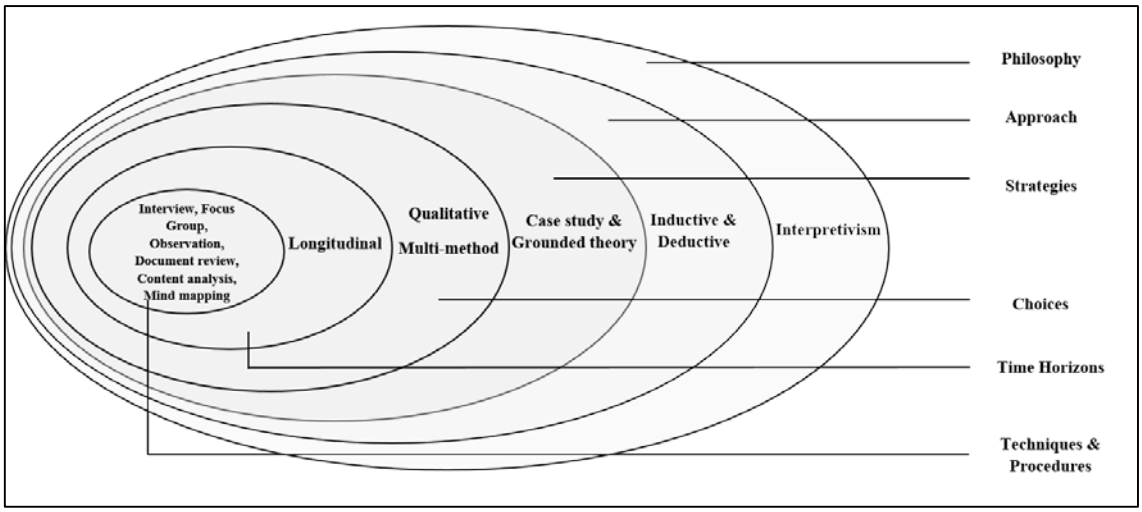
As described by Bryman (2012), cross sectional study entails an investigation of an phenomena at a single point whereas longitudinal studies entail investigation of an phenomena at certain points in the study. Similarly, Saunders et al. (2009) stated that if the researcher needs to investigate the phenomena as a “snapshot” taken at a particular time, the time horizon for the study is cross sectional and if the researcher wants a series of “snapshots” to be a representation of events over a given period, the time horizon is best described as longitudinal.

Considering the circumstances of the research in question, it is apparent that the nature of this investigation demands that the study be carried out over a period of time. To answer the research question the researcher needs to evaluate the current top down urban design process and also the researcher needs to employ the regenerative bottom up process in urban design project environments. Accordingly, the researcher needs to collect data at certain points in time rather than at a single point in time. For example, the researcher needs to be a part of the whole urban design process which is conducted at certain points in time, such as problem identification, urban analysis, strategy generation etc. These are sequential stages of the urban design process, and accordingly, in each stage of the process the researcher needs to see the behaviour of the stakeholders in order to build the new, community embedded, urban design process framework. Therefore, this study is better focused as a longitudinal research design.

3.8. THE RESEARCH INTO THE 'ONION' METHODOLOGICAL FRAMEWORK

Throughout the discussion and the analysis made in section 3.3-3.7 the design of this particular study has been carefully constructed using the onion model for guidance. The sixth layer of the 'onion' model, data collection and data analysis, is governed by the research approach, strategy and research choice which have already been discussed. The data collection and analysis techniques are to be discussed, in-depth, in section 3.11.; but in summary, the research design in the 'onion' methodological framework can be presented as follows:

Figure 3-7- The research design in the onion methodological framework-(Saunders et al., 2007)



3.9- OPERATIONAL ASPECTS

The operational aspect of a qualitative research is guided by the phenomenology. As stated by Langdridge (2007), phenomenology is a qualitative method which focuses on human experience as a topic in its own right. Maykut and Morehouse (1994) introduce phenomenology as an over-arching perspective from which all qualitative research is sourced. Accordingly, Kafle (2013) introduces three traditions of phenomenology which are:

- Transcendental phenomenology
- Hermeneutic phenomenology
- Existential phenomenology

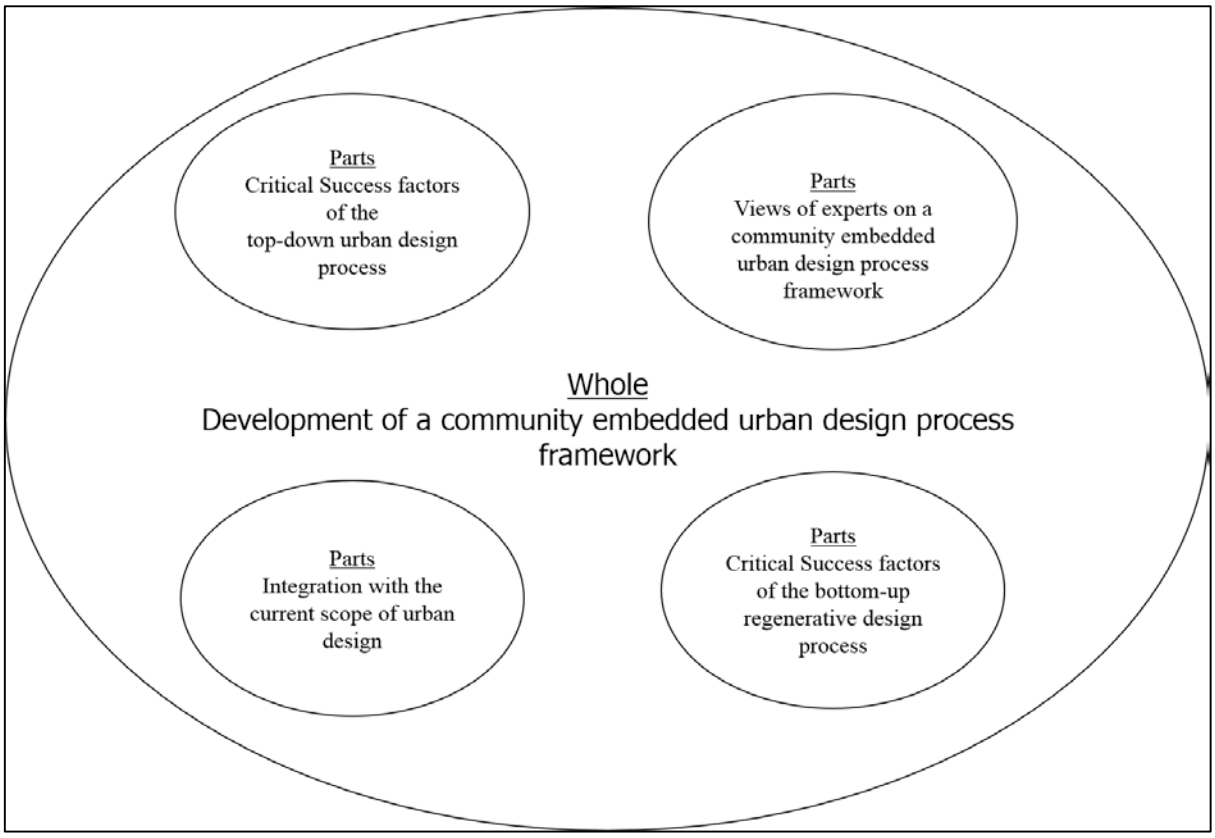
As stated by Kafle (2013), transcendental phenomenology is quite similar to the positivist tradition where transcendental phenomenologist believes in suspending personal opinion when conducting qualitative research. Accordingly, this operational aspect does not suit this research, because at certain points in the empirical investigation the researcher intends to be a part of the project to observe the urban design process and learn from it, furthermore, the researcher needs to obtain perspectives from the stakeholders. These qualitative data are, in fact, subjective and do not suspend personal opinions. Furthermore, as stated by Kafle (2013), existential phenomenology is best suited when empirically investigating a day to day phenomenon which, in fact, does not happen in this particular research study. Heidegger (1954) introduced hermeneutic phenomenology into qualitative research informing that suspending personal opinion is impossible, accordingly, hermeneutic phenomenology makes an effort to get beneath the subjective experience and to observe the genuine, objective nature of entities as realised by an individual. Similarly, Paterson and Higgs (2005), define hermeneutics as the theory and practice of interpretation. Based on these arguments it is clear that in this particular research the researcher cannot totally ignore the subjectivity, but the researcher seeks to control the subjectivity by triangulating data which are collected from different data sources. Accordingly, it can be noted that the operational aspect of this research is guided by modern hermeneutic phenomenology. As stated by Kafle (2013), hermeneutic phenomenology dates back to the 17th century, when hermeneutics became associated with the interpretation of Bible text. However, as explored by Paterson and Higgs (2005), modern hermeneutic phenomenology interprets modern cultural and social systems.

3.9.1- THE HERMENEUTIC CIRCLE

As discovered by Kafle (2013), the hermeneutic circle maintains the quality of the entire research process. As explored by Paterson and Higgs (2005), the practical aspect of the hermeneutic circle involves repeatedly and cyclically alternating between the aspects (parts) of the phenomenon being investigated and the complete picture of the phenomenon (whole). Similarly, Mantzavinos (2009) explains that in the hermeneutic circle the whole is understood in terms of its parts and how those parts are integrated to create the whole. As argued by Kafle (2013), in the hermeneutic circle the whole phenomena is initially understood and through its parts the understanding of the whole phenomena is strengthened and properly interpreted.

Figure 3.8 illustrates the use of the hermeneutic circle within the scope of this project;

Figure 3-8-Use of the hermeneutic circle within the scope of this research



As figure 3.8 investigates the 'whole' is the phenomenon in the investigation which is the development of a community embedded, urban design process framework. This 'whole' is

guided by the researcher's initial understanding but the 'whole' is strengthened and established only through thorough investigation of the parts of the phenomenon which are;

- The investigation of the KFs in the current urban design process
- The investigation of the KFs in the bottom-up regenerative design process
- Investigation of the current scope of urban design
- Experts views on the development of a community embedded, urban design process

Accordingly, it can be noted in the hermeneutic circle that when the 'parts' are being investigated the scope of the 'whole' is also being investigated, therefore, investigation of the parts is interpreted within the context of the 'whole'.

As per the argument of Mantzavinos (2009), we can understand the 'parts' of a social phenomenon only if we know the 'whole', however, we can understand the 'whole' only if we know its 'parts'. Therefore, Mantzavinos (2009) criticises the hermeneutic circle stating that without having a proper understanding of the 'whole' we cannot investigate its 'parts'. Similarly, Motahari (2008) also argues the same. Considering the arguments for the hermeneutic circle the researcher seeks to explore the hermeneutic spiral in section 3.9.2.

3.9.2- THE HERMENEUTIC SPIRAL

As described by Motahari (2008) the hermeneutic spiral also explains what is understood by the 'parts' of phenomenon as in the hermeneutic circle. However, as argued by Motahari (2008), the hermeneutic spiral investigates the 'parts' of a phenomenon in a more logical way. Accordingly Motahari (2008) definitions of the hermeneutic spiral is;

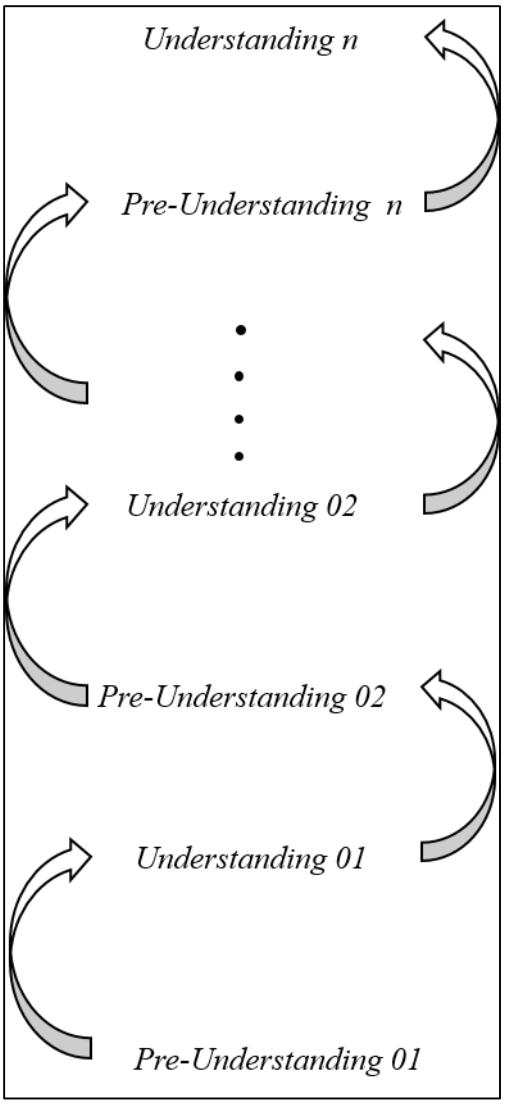
> *'Hermeneutic spiral is a self-correcting process of learning that spirals into the meaning of whole by using each new part to fill out and qualify and correct the understanding reached in reading the earlier parts'. (Motahari, 2008:102)*

Similarly Gummesson (2000) explains;

> *'...the pre-understanding refers to the people's knowledge, insight and experience before they engage in a research programme or consulting assignment, while understanding refers to their improved insights emerging during the programme or assignment' (Gummesson, 2000 :57).*

Accordingly, it can be noted that in the hermeneutic spiral the study of phenomena beings with the researcher's epistemological and ontological assumptions, taking forward the researcher's pre-understanding about the context. Therefore, initially, the researcher's pre-understanding is explored, which is an investigation of a 'part' of the whole phenomena and then that understanding becomes a pre-understating which leads to further understanding until, finally, exploring the understanding of the 'whole'. Based on the explanation by Gummesson (2000) the nature of the hermeneutic spiral is explained in the figure 3.9.

Figure3-9- The hermeneutic spiral - adopted from (Gummesson, 2000)



According to the hermeneutic spiral, at the beginning of a research project, the researcher starts the study with a certain pre-understanding (represented as pre-understanding one in Figure 3-9). During the research, the researcher generally develops an understanding of the phenomenon in two ways; using primary and secondary data. In an extensive literature

synthesis the researcher strengthens the pre-understanding 01 to understanding 01 and then that particular understanding becomes the pre-understanding 02 to building up the understanding level 02 which may be an initial literature informed conceptual model. Thereafter, the primary data collection and analysis is based on understanding 02, which then becomes a pre-understanding for the data collection point 01, which may be case study 01. Once case study 01 is analysed that knowledge becomes understanding 03 and for further understanding a second case study is evaluated where the understanding 03 becomes pre-understanding for case study 02. Once case 02 is evaluated that creates understanding level 04 and if the researcher intends to further evaluate the findings, maybe through expert validation, the understanding level 04 becomes the pre-understanding for understanding level 05. Once the findings are validated that understanding can be the final understanding of the phenomena.

However in this research study the researcher begins with pre- understating of;

1. The current top-down urban design process has negative implications
2. The bottom-up regenerative design process can be a basis for the study to build a community embedded, urban design process framework

The researcher does not necessarily rely on each pre-understanding. Initially, the researcher strengthens pre-understanding 01 to understanding level 01 by conducting an extensive literature review of the scope of urban design; current urban design process and its implications, bottom-up urban design process and its implications, features of the regenerative design concept and literature informed components of a sustainable urban design process framework. However, the researcher does not initially use pre-understanding of the literature (pre-understanding 02) for the next level of understanding, which is the primary data collection. The researcher inductively assesses the primary data in the two cases, and based on that, the researcher builds the initial urban design process framework which is then taken to the next level of understanding by triangulating the initial pre-understanding in level 02. Thereafter, the researcher takes that understanding to the next level of pre-understating by validating the developed conceptual model using the opinions of experts in order to build the final understanding for the study.

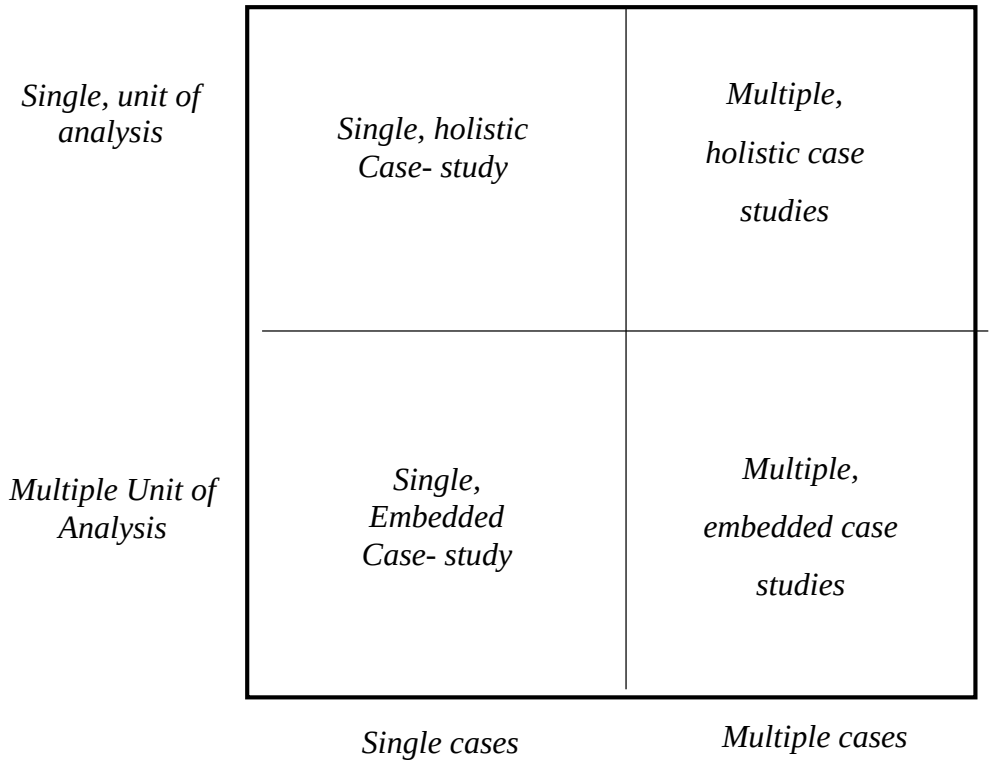
Accordingly, it can be noted, that the researcher has used the operational aspect of this study in the both hermeneutic circle and the hermeneutic spiral. The researcher begins the operational aspect with the hermeneutic spiral and then mid-way the operational aspect leans

towards the hermeneutic circle; then again, in the latter part the operational aspect of the study turns once again towards the hermeneutic spiral.

3.10- THE CASE STUDY DESIGN

Case study strategies are classified as single or multiple case studies whether they are holistic and/or embedded case studies Yin (2009). Figure 3.10 below illustrates the types of case studies as described by Yin (2009).

Figure 3-10- Types of case study designs, Yin (2009)



3.10.1- SINGLE VS MULTIPLE CASE STUDY DESIGN

Single case study strategy can be justified according to whether the single case represents the critical case in testing a well-formulated theory; or when the single case represents an extreme or unique case; or when the single case is a revelatory one (Yin, 2009). Eisenhardt

(1989) highlights the drawbacks of the single case approach when viewed from the theoretical perspective, in the area of generalisation to theory and the biases inherent in information processing stages. Accordingly, she argues that the use of the multiple-case approach encourages observer independence and serves to boost external validity. However, the use of multiple case studies has also been criticised as being an attempt by qualitative researchers to attempt statistical generalisation against analytical generalisation (Easton, 1995). This criticism has been countered by superior arguments emanating from Yin (2009) and Dubois and Gadde (2002), in that multiple-case studies are more capable of providing a stronger foundation for theory building than the single case study.

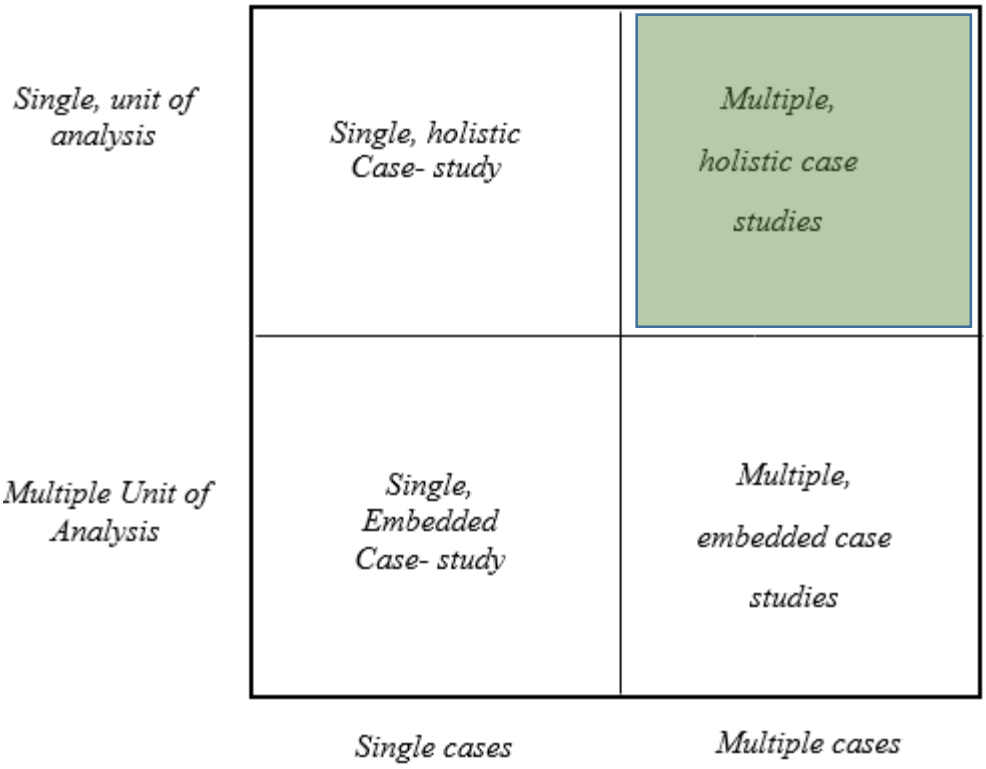
In this research study the researcher intended to adopt a multiple case study approach. As Yin (2009) recommends a single case study can be used when the researcher is testing a well formulated theory with a well-established history, but the researcher is not testing a single theory, the researcher is testing two different theories in order to build a new theory. As identified in the research gap there is a need to develop a new urban design process framework which is neither at the extreme end of the top-down process nor at the extreme end of the bottom-up process. Therefore, in order to develop a new process the researcher needs to study the top-down, current process in order to identify its advantages and disadvantages. On the other hand the researcher needs to identify the advantages and disadvantages of a bottom-up process where the researcher is evaluating the regenerative design process as a basis for the study. As Miles and Huberman (1994) describe, multiple case studies allow for comparisons and contrasts to be drawn from multiple sources to enhance the validity of theory. Similarly, in this case the researcher needs to increase the validity of the new theory by comparing and contrasting the merits and demerits of both the top-down and bottom-up processes. Leonard-Barton (1990) also argues that the use of a multi-case approach would assist the researcher to overcome the limitations of the single case approach; also the nature of this study does not allow the researcher to be on a single case study. So ideally, multiple cases should be examined but this would require a much larger study with a team of researchers. Accordingly, a comparison between both the ‘top down’ and ‘bottom up’ processes using a dual case study approach is an appropriate strategy for this project when the nature of the “unit of analysis” is also considered as explored in the next section.

3.10.2-UNIT OF ANALYSIS

Yin (2009) identifies two further classes of case study; the holistic and the embedded case study: also known as the unit of analysis. The embedded case study consists of several units of analysis within the case and the holistic case study comprises a single unit of analysis. In this research study the researcher seeks to evaluate both the top-down and regenerative design processes and even though the researcher is seeking to analyse two different urban design processes, the researcher is not analysing sub units in the same case. The only unit that will be analysed in both cases will be the urban design process which is being employed. Therefore, this research study can be identified as a holistic case study research.

Figure 3.11 illustrates the position of this research case study design (highlighted in green);

Figure 3-11- Case study design for this study



Section 3.8 explained the philosophical stance of this research in the 'onion' methodological framework. The nature of the research question determines the strategy of the research and the research approach directly influences the selection of appropriate the research techniques, accordingly section 3.12 details the research techniques used within this research during the data collection and data analysis processes. Before detailing the research techniques in the

section 3.12, it is important to describe the operational design of this study because it has unique features within the methodological framework of the study.

3.11- OPERATIONAL DESIGN OF THE RESEARCH

This research has its own operational design elements. As justified in section 1.2, the intention of this research is to develop a new urban design process framework by evaluating the positive and negative features of both top-down and bottom-up urban design processes. Therefore, in both cases, the researcher aimed to investigate the urban design processes of two urban design projects. Both the projects were real life urban design and public realm development projects which were conducted by two local authorities in North West England.

The urban design process in case one was the current top-down process, therefore, as per the need to evaluate the features of the top-down process the researcher investigated case study 01 without interfering in the process. Secondly, as per the research design the researcher evaluated the features of a pure bottom-up urban design process, however, as described in section 2.5.2 current urban design projects employ the top-down process. Therefore, the researcher's need to investigate a pure bottom-up process was in question. Accordingly, in the second urban design project, which is referred to as case study 02 the researcher obtained permission from the revenant local authority to employ a bottom-up urban design process in their urban design project. Based on these circumstances, the researcher used the integrative regenerative design process in the urban design project process of the second case study. Accordingly, the integrative regenerative design process became the basis for investigating the bottom-up urban design process. The use of integrative regenerative design as the basis for this study was firmly established in section 2.6.3. As the two cases evaluated two urban design processes, the research techniques employed are different in each case and the selection of appropriate research techniques is described in the section 3.12. The development of the research according to the research methodology and the achievement of the objectives were presented in the figure 1.1 in the section 1.5.

3.12- RESEARCH TECHNIQUES

Based on the research methodology framework adopted for this research (see section 3.2), "research techniques" occupy the innermost ring of the model and are influenced by the selected research philosophy and approach. Within this context, "research techniques" refer to techniques used for data collection and analysis. Data collection techniques used in this study includes literature review and synthesis, interviews (both within the case study stage and validation stage), focus group discussion (case study stage), observation (case study stage), online discussion forum (case study stage) and document review (case study stage). The data analysis and presentation techniques employed were content analysis and mind mapping.

3.12.1 DATA COLLECTION TECHNIQUES

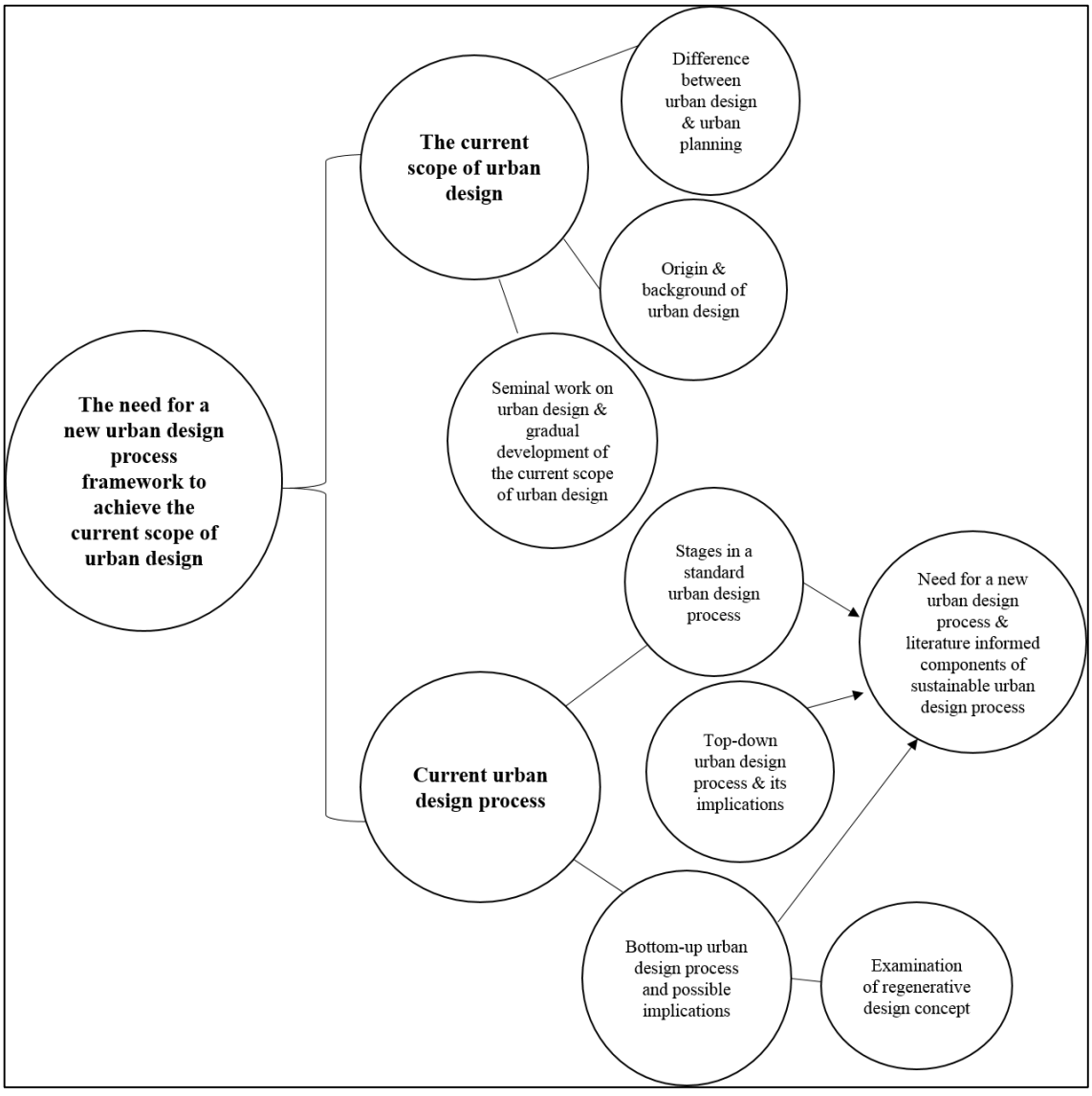
This section details the data collection techniques used within this research. Literature review and synthesis has been used as a research technique within this research as a common data collection method, where the collection and synthesis of secondary data was appropriate. However, when it come to the investigation of the primary data related to the two cases the researcher had to employ different data collection techniques in each case while employing common data collection techniques due to the nature of the cases under investigation. The reasons for using different data collection methods are justified in section 3.11. In the first case study the researcher used the data collection techniques of observation, interviews and document reviews. The data collection techniques used in case study 02 were interviews, focus group discussion, online discussion forum and the document reviews. The researcher will explain the appropriateness of the use of these techniques in the discussion below.

3.12.1.1 LITERATURE REVIEW AND SYNTHESIS

Literature review and synthesis was used as a data collection method, where the collection and the synthesis of secondary data were appropriate. At the early stages of the research the researchers explored the broad themes of urban design concepts and the issues in urban design. As the research progressed, the literature search and review was narrowed down to specific subject areas of the current scope of urban design and the implications of the current urban design process to achieve its scope. Having started the literature search and the review

of the above subject areas without a specific reference to the phases of the urban design process, the review was further narrowed down to the issues related to designing the urban design process ignoring the implementation stage in the urban design process. These initial literature reviews and syntheses have provided the background to the phenomenon being investigated and helped to establish the research gaps. With identification of the research gap, the researcher identified the need for evaluating a bottom-up urban design process, and therefore, the researcher investigated the literature on the regenerative design process in order to use the concept as a basis for the study. The literature synthesis guided the researcher in building the literature informed key factors for a sustainable urban design process which were later triangulated with the primary data. The literature synthesis for this study is presented in chapter two and the following figure illustrates the key areas covered by the literature review.

Figure 3-12- Key areas of literature reviewed



3.12.1.2 INTERVIEWS

Interviews are widely used as a data collection strategy in many research studies. As stated by Bryman (2012) interview technique is probably the most widely employed method in qualitative research. Bryman (2012) highlights three generic forms of interviews they are: structured, unstructured and semi-structured. Structured interviews are conducted based on an explicit pre-arranged set of questions, and often, the questions are asked in an explicit sequence. These interviews often provide a cost-effective means of gathering data from a large sample. On the other hand, unstructured interviews are often conducted within an informal setting, allowing the interviewee to communicate freely their ideas on the subject. Saunders et al. (2009) state the structured interview technique is more suited to quantitative research than to qualitative research and the authors introduce structured interviews as an interviewer-administered method. On the other hand Saunders et al. (2009) observed that unstructured interviews are more in-depth information oriented which is mostly suitable in a qualitative research environment. At the same time, the authors remark that unstructured interviews are non-directive, and therefore, may be more time consuming. In addition to the two methods stated above there is another generic form of interview technique which is called the semi-structured interview. As described by both Bryman (2012) and Saunders et al. (2009), semi-structured interviews encompass the characteristics of both structured and unstructured interviews. In general, within semi-structured interviews, the questions are pre-determined and a formal interview guideline is present, but the order and wording can be modified where appropriate. The interviewer has the freedom to add, omit or change the questions as the interview progresses. As discussed by Bryman (2012), semi-structured interviews allow the researcher to maintain the focus of the study while allowing the research participants to express their views freely on how they view the subject matter.

The research choice identified in this study is the multi method qualitative research choice. Therefore, the structured interview method is not appropriate for this study, however, the researcher needs to explore the issues in-depth in order to build the new urban design process framework, and therefore, the use of a highly structured interview would not be suitable. But taking into consideration the researcher's main audience for data collection, which is the wider community, it becomes obvious that the unstructured interview is not suitable as the researcher needs some control when collecting data from the wider community. The data

collection action involving the wider community should be carefully designed as they may have different views on different matters which are not part of the research under investigation, and therefore, they may not comment accurately on the research questions that need to be addressed. Therefore, having some pre-determined questions is advisable although community members should have the freedom to express their views rather than limiting them to a strictly sequenced set of questions. Therefore, the extremely organised nature of structured interviews is also not appropriate. Having considering this the most suitable interview format for this study is the semi-structured interview. Conversely, this research contains interviews with professionals with more expertise than the wider community; nevertheless the researcher adopted the semi structured interview format due to the need for exploring issues in depth and also due to the need to frame the study within a certain time period since the researcher needs to meet the deadlines for the PhD.
Even though the researcher employed the semi-structured interview data collection technique, different forms of semi structured interview were used to target different audiences in the case studies.

As described in section 3.11, in case study 01 the researcher investigated the current top-down process, accordingly, the researcher conducted a semi-structured interview with the principal project officer for that particular urban design project in order to obtain a professional perspective from the project implementers about the current top-down urban design process. Furthermore, in case study 01, the researcher used the semi-structured interview technique to investigate the community's perspective regarding the current top-down urban design process. Thereafter, in the second case study the researcher used the semi structured interview technique in two instances. The use of semi structured interviews in case study 02 is quite different from case study 01. In case study 02 the researcher used this technique to investigate the integrative regenerative design process. As stated in section 3.11 in case study 02 the researcher employed the integrative regenerative design process as the basis for the investigation, and therefore, the semi structured interview technique was used within the context of integrative regenerative design process. As per the integrative regenerative design process it was necessary that an integral assessment was undertaken which aimed to identify the whole environment as a system; in order to do that it was necessary to interview community leaders and professionals who have a direct influence on development in the area. Accordingly, the semi structured interview technique was used to interview; the president of the community forum for the area and also the project officer

involved in previous regeneration work. Thereafter, as per the stages of the integrative regenerative design process the community should be actively engaged in the design process, accordingly, the researcher used the semi structured interview method for wider community engagement at two points referred as the 'story of the place' and 'stakeholder engagement' in the integrative regenerative design process. At these two particular community engagement points, the researcher used a small booklet which provided the community with the opportunity to comment on design issues; this booklet followed the basic parameters of the semi structured interviews. Focus group discussion would have been an ideal research method for wider community engagement but the researcher had to stick to the interview method at this stage in line with the regulations of the local authority who granted permission for the researcher to work within their live project. However, data collection from individuals, using the semi structured interview method, was extremely useful as it allowed the researcher to conduct an in-depth investigation with individual community members. However, the researcher ensured the same set of individuals participated in the second contact point which was related to the first contact point as per the features of the regenerative design process.

In addition to these instances the researcher used the semi structured interview technique at the validation stage of the study to interview experts in the field of urban design. Accordingly, in the two empirical investigations the researcher used the semi structured interview method on four different, but interrelated occasions, table 3.1 explains the use of the semi structured interview in both empirical investigations and also in the research validation.

Table3.1- Set of semi structured interviews used in both empirical investigations

Interview Number	**Applied context (case 01,02 or validation)**	**Type of interviewee**	**Purpose**
Interview A	Case 01	Principal Investigation Officer for the project in case 01	Investigate the urban design project process implementers

			view point of the top-down process
Interview B	Case 01	Community Member	Investigate community perspective of the top-down urban design process
Interview C	Case 01	Community Member	Investigate community perspective of the top-down urban design process
Interview D	Case 01	Community Member	Investigate community perspective of the top-down urban design process
Interview E	Case 01	Community Member	Investigate community perspective of the top-down urban design process
Interview F	Case 01	Community Member	Investigate community perspective of the top-down urban design process
IV 01	Case 02	Project Officer from previous urban development work	Data collection for the integral assessment
IV 02	Case 02	President of the Community Forum	Data collection for the integral assessment

CIV1 & CIV 11 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV2 & CIV12 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV3 & CIV13 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV4 & CIV14 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV5 & CIV15 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV6 & CIV16 CIV15 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the

			place' & for stakeholder engagement
CIV7 & CIV17 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV8 & CIV18 CIV17 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV9 &CIV19 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
CIV10 & CIV20 CIV20 (same person at two points)	Case 02	Community Member	Community workshop to shape 'story of the place' & for stakeholder engagement
Expert 01	Validation stage	Expert in urban design practice	To validate the conceptual model through urban design professionals

Expert 02	Validation stage	Expert in urban design practice	To validate the conceptual model through urban design professionals
Expert 03	Validation stage	Expert in urban design practice	To validate the conceptual model through urban design professionals
Expert 04	Validation stage	Expert in urban design practice	To validate the conceptual model through urban design professionals

3.12.1.3 DOCUMENT REVIEW

Bryman (2012) explains that documents can be used as a source of data. Bryman (2012) also states that different types of document can be used as sources of data in empirical investigations. As the author describes, personal documents, official documents of state, official documents from private sources, mass-media outputs etc., can all be data sources. In this study the researcher has used documents as a source of data which were obtained from both city councils that were the authorised bodies for both urban design projects investigated.

In the first case the researcher reviewed documents which emphasised the urban design project process for that particular project and in the second case study the researcher used the document review in the integral assessment stage of the regenerative design process. As detailed in section 2.6.2.1.1 integral assessment seeks to understand the whole system of the environment through different data sources.

The documents reviewed in the two empirical investigations are presented in table 3.2.

Table 3.2-Set of documents reviewed under two empirical investigations

Document No	**Document Name**
CASE 01	
DR-01	Project Launching Brochure- for cohesive and green neighbourhoods
DR-02	Reviving High-Rise Blocks- Mid-Term Brochure
DR-03	Local Support Group Meeting 3 - agenda & attached documents • Required Components of the Local Action Plan • A Review of Draft Priorities – incorporating feedback from the Peer Review.
DR-04	Minutes of the Engagement Planning meeting
DR-05	Project July 2014 Mid –Term Newsletter
DR-06	Reviving High-Rise Blocks Mid-Term Newsletter- Meeting of European Experts March 2014
DR-07	Community engagement preparation material-01
DR -08	Community engagement preparation material-02
DR -09	Summary document after completion of the community engagement workshop
DR -10	Draft local action plan
DR -11	Final local action plan to the assistant mayor
CASE 02	
DR1	Summary document prepared by the researcher based on all the other reports

DR 2	Communications Strategy Rev 9th January 2012
DR3	2 Page summary of the market analysis for the LDSG Mtg on 15 march 2012
DR4	Construction charter
DR5	Construction Phasing Plan
DR6	Consultation and communication
DR7	Demolition of the Arcade, Library and Community Centre
DR8	Development Delivery Strategy _Nov_2005
DR9	Development Opportunity Sites (Draft - 03 08 11)
DR10	Executive Summary Report - Aug 2005
DR11	Public Realm Design Briefs 10-05-26
DR12	Public realm improvements
DR13	Questions for Developers and Investors (13 08 11)
DR14	Residential developments - phase 2a
DR15	Residential developments - phase 2a (2)
DR16	Youth Group consultation
DR17	Landscape proposals
DR18	Infrastructure Public Realm
DR19	Land Development Steering Group

3.12.1.4 FOCUS GROUP DISCUSSIONS

As described by Bryman (2012) focus group technique is a method for interviewing more than one interviewee at once; usually at least four interviewees. The authors introduced focus group as an essential group interviewing method. Focus group is an ideal technique when it is necessary to investigate a theme or a topic in-depth in a wider audience. Similarly, Saunders et al. (2009) observe that the group interviewing method is an ideal technique to

interview a group of people at once to investigate a common theme. Bryman (2012) informs, some authors differentiate focus group technique from group interviews, however, as the same author stated there is no clear cut definition between focus group and group interview techniques.

Accordingly, the researcher used the focus group discussion research technique for the data collection in case study 02. The researcher used this technique in the context of regenerative design, and therefore, the researcher conducted a focus group interview to build the 'story of the place' before working with the wider community (the principals of regenerative design concept are explained in section 2.6.2.1). The members of the focus group were officers from the community forum in the study area. There were 12 officers in the forum and the researcher divided them into three groups which ensured the effective participation of four members in each focus group.

3.12.1.5 OBSERVATION

Saunders et al. (2009) describe observation research technique as a process of systematic observation, recording, description, analysis and interpretation of people's behaviour. Saunders et al. (2009) introduce two types of observation; participant observation and structured observation. The authors describe structured observation as quantitative which is more concerned with the frequency of actions. Participant observation is qualitative and its emphasis is on discovering the meanings the people attach to in their actions. Guthrie (2010) introduces three types of observation based on the role of the observer. These are;

1. Participant Observation – Researcher takes part in the research situation as a genuine member of the group
2. Non-Participant Observation- requires the researcher to be present, but not to participate in group actions
3. Hidden Observation- Observer is out of sight of the people or group being investigated.

The researchers used the observation method as a key method in case study 01 in order to investigate the current top down urban design process. Accordingly, the most suitable method of observation was the non-participant observation where the researcher wanted to

be part of the planning team but not to interfere in their decision making process. Accordingly, the researcher participated all the planning meetings conducted by the planning team (local support group) for that particular project and carefully observed the nature and features of the top-down urban design process. Table 3.3 describes the planning meetings in which the researcher participated as a non-participant observer.

Table 3.3- Planning events attended by the researcher as a non-participant observer

Event number	**Meeting/Event Based for the Observation**	**Purpose of the meeting**
FOBT-01	Local Support Group-Meeting on December 2013	Identify the issues and priorities
FOBT-02	Local Support Group-Meeting on April 2014	Creation of draft strategies and actions
FOBT-03	Community Engagement Workshop August 2014	Inform community about the solutions
FOBT-04	Final Gathering of Support Group August 2014	Finalisation of the solutions

3.12.1.6 ONLINE DISCUSSION FORUM

As already stated in section 3.11, the researcher employed the regenerative design process in urban design project process in the case study 02. Accordingly, as per the principals of regenerative design the wider community should be engaged in the urban design project process. In addition to wider community engagement through focus group discussion and individual semi structured interviews, the researcher intended to obtain more community participation through an online forum. Even though the researcher's prime intention for launching an online forum was to engage the wider community in the urban design project

process, the researcher expected to obtain a brief understanding of how people are motivated to participate in online community discussion forums which are related to urban design. The researcher provided the online forum link to the community who participated in the community workshops asking them to provide online forum link to the other community members who did not participated in the event. However, this attempt was unsuccessful as the researcher did not receive any responses through the online forum.

3.12.2 DATA ANALYSIS AND PRESENTATION TECHNIQUES

For the purpose of analysing the data gathered during the data collection stage of this research, two data analysis techniques were used. These are thematic analysis and mind mapping. The purpose of the thematic analysis was to analyse the data to develop and organise the main themes (concepts) related to the phenomenon being investigated. Mind mapping was used to illustrate and to further clarify the related issues, using the relationship between the concepts identified. These techniques are detailed below.

3.12.2.1-THEMATIC ANALYSIS

As stated by Saunders et al. (2009) thematic analysis is one of the most common methods used for qualitative data analysis. Thematic analysis emphasises and examines recording patterns in data which are referred to as “Themes”. Themes are the patterns across data sets that are important to the description of a phenomenon and are associated with the specific research question. In the in-depth analysis the themes become the categories for the analysis. Thematic analysis is operated through six phases to establish, meaningful patterns. The six phases are: familiarisation with data, generating initial codes, searching for themes among codes, reviewing themes, defining and naming themes, and producing the final analysis.

The researcher used computer aided qualitative analysis software NVIVO (version 10) as a support for the thematic analysis. As described by Bryman (2012) NVIVO is a useful software programme for use in qualitative analysis but it does not replace the need for the researcher and he has stated NVIVO is only a computer application which facilitates the qualitative analysis.

The following procedure was carried out within the research concerned to analyse the data using thematic analysis. Firstly, the data collected through semi-structured interviews were transcribed and saved as Microsoft word files. Some parts of the semi structured interviews contained drawings by community members, and therefore, the researcher scanned them and saved them as JPEG files. The field notes from the observations were converted to Microsoft word format from their original hand written state. The recordings which were a part of the observation field notes were transcribed and merged with the field notes which were transferred into Microsoft word format. The reports in the document review were originally in Word or PDF format, and therefore, not converted into any new format. Thereafter, all the documents were uploaded to the NVIVO 10 version creating two separate NVIVO projects for the two cases under investigation. The NVIVO 10 version facilitates uploading Word files, PDF files, JPEG files and even video files. Thereafter, in each NVIVO project the initial coding was identified in order to identify the themes among the codes. Once the themes are identified the sub-themes and further sub-themes were identified in the coding until no further sub theme is emerged. Once the theme structure, which is referred to as, the node structured in NVIVO is developed, the analysis was taken to the next level which was to identify the in-depth meanings given by each theme using the mind mapping technique. Section 3.13.2.2 describes the mind mapping technique used in the study.

3.12.2.2 -MIND MAPPING

Buzan and Burton (2003) introduce mind mapping as a research analysis technique to clear the mind of previous assumptions about the subject. Tattersall (2013) describes mind mapping as a successful qualitative research method to clear the assumptions and to visually organise the information in an identified theme for an in-depth analysis of the contents in the theme. Accordingly, the researcher used the computer aided software Inspiration (version 09) as a support for the mind mapping process. The researcher began the mind mapping based on a single theme, and accordingly, each key theme, stated in section 3.12 .2.1, was used as a basis for an independent mind map. In each mind map the researcher looked into each sub–theme, and sub-themes within sub- themes, and so on; investigation of these sub themes assisted the researcher to identify the relationship between the sub themes (concepts).

3.13 RESEARCH VALIDATION

Thomson (2011) states the validity of a qualitative research is argued by positivists who rely on quantitative research. But Thomson (2011) argues qualitative research is needed whenever the researcher deals with issues that involve the human thought process that is affected by the beliefs and values of the individual. The author argues that even though quantitative research provides hard facts and figures to validate the research and build theory, a qualitative analysis uncovers the subjective viewpoint at the very heart of these hard facts and figures. Accordingly, he argues both quantitative and qualitative research is seeking to uncover the truth, but because of the subjective nature of a qualitative research, a qualitative research can be validated by using different validation methods. Accordingly, Yin (2009) highlights some of the important quality parameters that qualitative research should take into account. These are: construct validity; internal validity; external validity; and reliability.

3.13.1- CONSTRUCT VALIDITY

Miles and Huberman (1994) explain that construct validity is a measure of whether the correct operational measures have been established for the issues being investigated. Specifically, this measure is largely based on whether the data collection instrumentation was appropriate for the research. With reference to this research, the researcher ensured the construct validity by triangulating research techniques. The researcher used multiple data collection methods to ensure that the correct data collection instruments were used in the study. In addition, the researcher used two research analysis techniques which are thematic analysis and mind mapping to ensure the researchers has used appropriate instruments in data analysis.

3.13.2- INTERNAL VALIDITY

Research Methods Knowledge Base (2008) states that internal validity reveals the approximate truth about inferences regarding cause-effect or causal relationships. Accordingly, in internal validity, the researcher needs to demonstrate that the analytical strategies were applied correctly and the theoretical propositions were linked to the data appropriately. In this research study the researcher addressed validity in several ways. At the beginning the researcher carefully designed the methodological framework for the research by using the 'onion' methodological framework. Accordingly, the research design enabled the researcher to carefully select the appropriate research techniques as per the research strategy and approach of the study. Furthermore, the development of research objectives to build a pathway to address the research question is also another example which demonstrates the internal validity of this research.

3.13.3- EXTERNAL VALIDITY

Research Methods Knowledge Base (2008) describes external validity as being related to the generalisation of research findings. Yin (2009) states, case study research leads to analytical generalisation rather than theoretical generalisation. According to Yin (2009), in a case study research previously developed theory can be used as a template to compare results, and therefore, he states case study research is generalisable to theoretical propositions. Accordingly, this study has maintained external validity in two ways, firstly the use of multiple case study methods ensures the validity of this research and secondly, the investigations of both 'top-down' and 'bottom up' processes ensures that the researcher has evaluated both processes at two extreme ends in order to build a 'balanced' process. This informs the generalisability of the findings of this research.

3.13.4- RELIABILITY

Reliability demonstrates that the operations in a study can be repeated with the same results. Accordingly, the researcher has developed a methodological framework for this study and the methodological framework was discussed step by step in this chapter to provide transparency for the entire research process, thus ensuring reliability.

3.14 SUMMARY OF THE CHAPTER

This chapter discussed the research methodology adopted and used for this study, presenting the 'onion' research methodological framework, consisting of six, interrelated elements: research philosophy; research approach; research strategy; research choice, time horizons and research techniques. Each of these elements was elaborated and the rational for the specific choice of each element was also explained. Thereafter, the operational aspect of the research was investigated, and finally, the research validation was explained. The next chapter describes the research findings for case study 01.

Chapter 4 RESEARCH FINDINGS- CASE STUDY 1

4.1- INTRODUCTION

This chapter focuses on building up the initial framework based on the findings from case study one. Accordingly this chapter is structured as follows,

- Firstly, the background details of the urban design project, based on investigating the urban design process, is presented including a description of the data collection for the case study
- Thereafter, prior to presenting the main analysis, the features of the urban design project process are presented.
- Thirdly, the main analysis is presented which leads to the identification of the key factors emerging from the case study
- Finally, the key factors that emerged were further analysed in order to build the initial conceptual framework which emerged through the case study one

4.2- BACKGROUND TO THE CASE STUDY

As described in the research methodology the researcher evaluated two urban design project processes. Accordingly this chapter describes the evaluation of the urban design project process of the case study 01 where the project process adopted the standard top-down urban

design process which is currently in practice in most of urban design projects (standard top down process is explained in the section 2.5.2). By conducting this case study the researcher expected to discover the positive and negative features of the current urban design process and how those positive and negative features assist in formulating the key factors and components of a new sustainable urban design process framework.

4.2.1-URBAN DESIGN PROJECT & IT'S PROCESS IN CASE 01

4.2.1.1- About the Project

In this case study the researcher investigated the process of a real life urban design project which was based in North West England. The urban design project was carried out by a city council in the North West of England. The project was particularly focused on one of the social housing areas where the scale of the urban design project was at neighbourhood level. The city council area has undergone many recent regeneration projects bringing new prospects to the area.

The housing estate where the urban design project was conducted is situated less than 1 mile away from, and within easy walking distance, of a prominent and famous city centre in the UK. As such it is a prime and sought after location. With excellent transport links by bus and train, this location also has excellent access to the northwest, national and international destinations.

Some of the nearby streets were once thriving high streets and have a strong historical significance. However, by the 1960's much of the poor quality terraced housing that had served the workforce of the surrounding industry, had been replaced by local authority maisonettes. This low rise housing was subsequently either converted to two storey housing or demolished and redeveloped in the late 1980's to early 1990's.

The estate is in the middle of a location with significant potential, and it has the advantage of considerable wider regeneration and investment taking place in the surrounding area. This regeneration will continue to provide a range of training and employment opportunities locally, in addition to improved public realm development.

The estate occupies 3.5 hectares and was built by the city council in the 1960's. The residential towers of the estate have a striking impact on the city skyline and there are exceptional views of the local area. The estate is not only close to significant environmental

attractions but also to leading higher education institutions. The estate is currently comprised of around 300 properties and houses around 500 people.

The area in question has undergone much refurbishment and development work in past years. Under the government initiative of 'decent home standard' programme housing conditions were improved and thereafter several development proposals were put in place in order to redevelop the housing estate and its surroundings. However, this particular project was introduced by having greater focus on the urban design aspect of the neighbourhood and accordingly the project focused on enhancing the image of the area while creating a vibrant community ambiance where people would want to live and settle down. With this in mind the project focused on improving the internal and external accessibility of the area, creation and improved use of the green spaces around the estate and also improvement of the public realm.

4.2.1.2- The Urban Design Process of the Project

As described in the section 4.2 the researcher conducted this case study to evaluate the current urban design process in order to identify the specific positive and negative factors in creating a sustainable urban design process framework. The urban design process for this project seemed to be a standard top down urban design process where in a standard top down process, the urban planners or urban designers analyse the urban environment; develop strategies and draft a plan and ultimately consult the community before finalising the proposal. Initially the process for this project looked to be a typical top down process, however, during the investigation of the case some unique features were found in this process compared to the standard top down process which will be discussed in section 4.3.

In this case study the researcher mainly played the role of observer throughout the urban design process. Sections 4.2.2 to 4.2.4 explain the researcher's role in this case study and how the researcher collected data and information throughout the project.

4.2.2- OBSERVATION

Non-participant observation is one of the key data collection methods in this case study. Accordingly the researcher participated in local planning team meetings and other events which were organised to develop the local action plan concerned for the case study 01. At

each meeting and event, as a non-participant observer, the researcher maintained a field notebook within which the researcher documented all the observational findings and later transcribed these into a set of field observational transcripts. With consent obtained from the participants the researcher used an audio recording device through all the session as a support to maintain the notebook.

The following table explains the list of field observational transcripts analysed by the researcher for this particular case study.

Table 4.1-List of meetings in which the researcher participated as an observer

Field Note Observation transcript NO	**Meeting/Event Based for the Observation**
FOBT-01	Local Support Group meeting on December 2013
FOBT-02	Local Support Group meeting on April 2014
FOBT-03	Community Engagement Workshop August 2014
FOBT-04	Final Gathering of Support Group August 2014

4.2.3- DOCUMENT REVIEW

Document review was another important method used in this case study to gather much significant information. Accordingly in this case study a set of documents were reviewed by the researcher which were relevant to the urban design project in the investigation. Many of the documents were progress update reports as presented in Table 4.2.

Table 4.2-Set of documents reviewed

Document No	**Document Name**
DR-01	Project Launching Brochure- for cohesive and green neighbourhoods
DR-02	Reviving High-Rise Blocks- Mid-Term Brochure
DR-03	Local Support Group Meeting 3 Agenda & attached documents

	• Required Components of the Local Action Plan • A Review of Draft Priorities – incorporating feedback from the Peer Review.
DR-04	Minutes of the Engagement Planning meeting
DR-05	Project July 2014 Mid –Term Newsletter
DR-06	Reviving High-Rise Blocks-Mid-Term newsletter- Meeting of European Experts March 2014
DR-07	Community engagement preparation material-01
DR -08	Community engagement preparation material-02
DR -09	Summary document after completion of the community engagement workshop
DR -10	Draft local action plan
DR -11	Final local action plan to the assistant mayor

4.2.4- INTERVIEWS

The interviews were conducted in this case study in order to have a third eye view on the urban design process conducted. By employing observation as a research method, the researcher could witness the whole urban design process, and note the viewpoints of the professionals, their behaviour, communication etc. However, the observation results are based on how the researcher perceived the urban design process and its elements. Thereafter, the document review provided a good appraisal of how the core project team and other project partners saw the project process and its elements. However, a firm view from the wider community perspective could not be established, therefore, several interviews were

conducted with community members in case study 01 area (Appendix A for sample interview guideline). This has given the researcher a good opportunity to investigate how the community regards the urban design process employed in this project; its drawbacks and any components that should be added to make the process more transparent. Apart from interviews with the community the researcher conducted a detailed semi-structured interview with the Principal Project Officer in charge of the particular project.

The following table indicates the list of interviews the researcher conducted for the case study 01.

Table 4.3- List of Interviews conducted

Interview Name	**Role of the interviewee**
Interview A	Principal Project Officer for the project
Interview B	Community Member
Interview C	Community Member
Interview D	Community Member
Interview E	Community Member
Interview F	Community Member

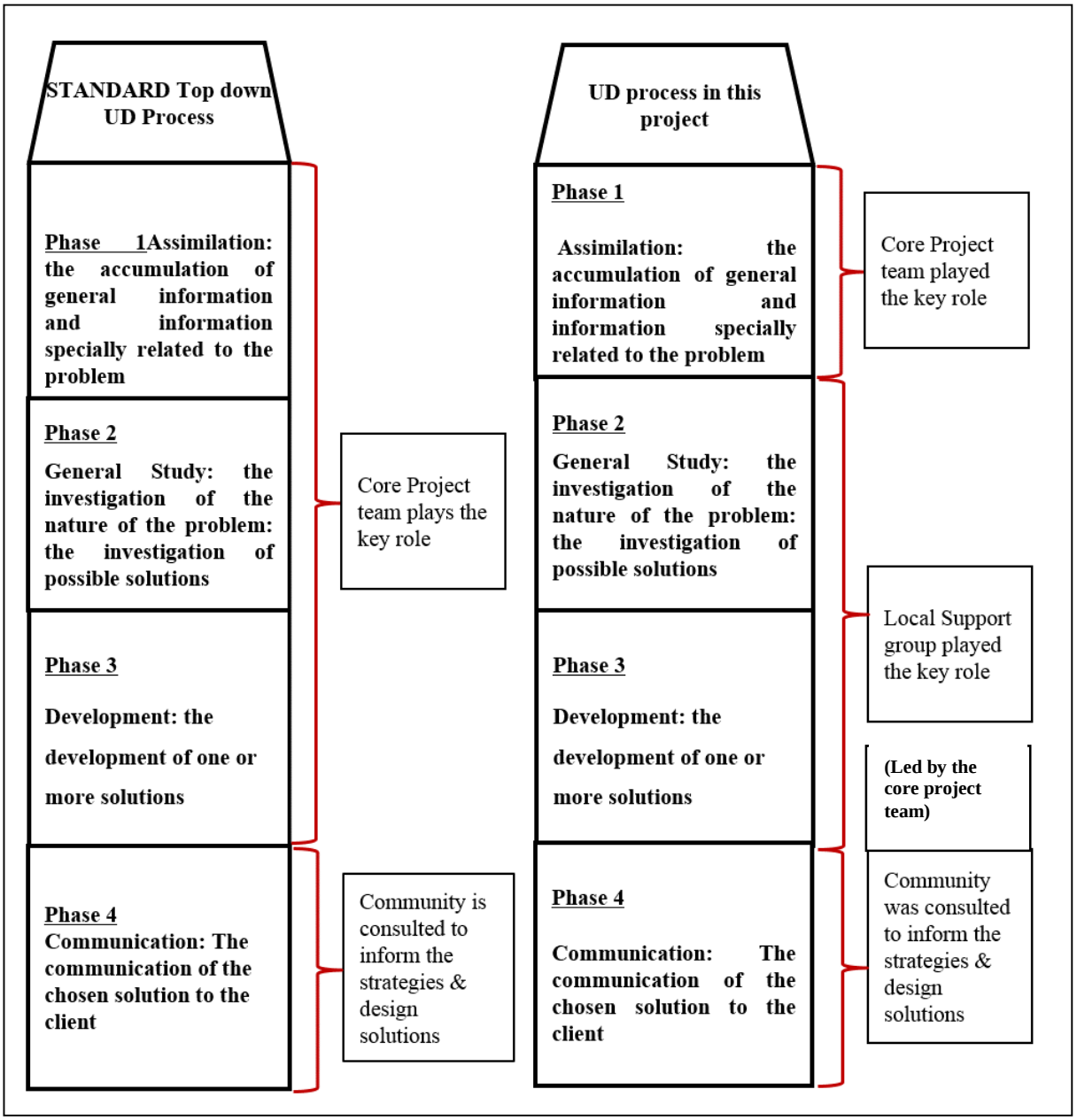
Having discussed the background of the project and its process in case study 01 the next section focuses on the findings of the case study and leads to how the findings inform the development of a new conceptual urban design process based on case study 01.

4.3- TOWARDS THE DEVELOPMENT OF THE INITIAL FRAMEWORK

The researcher intended to investigate the current, standard top down urban design process in this case study in order to identify the KFs of the standard top-down urban design process. As described in detail in the section 2.5.2 the current top-down urban design process is led by professionals and gives less prominence to the community. The professionals (urban planners, urban designers) analyse the urban environment, develop strategies, develop design solutions, and finally, a community workshop is conducted in order to seek the

community's impressions of the overall plan and the design solutions. However, in the initial investigation of the project process the researcher discovered some modified features in this particular urban design process that are not generally found in a standard top down urban design process. The key difference in this particular urban design project process that is not found in the standard top-down urban design process was the establishment of a 'local support group,' providing some opportunities to the stakeholders from the urban analysis stage to the strategy generation. However the representation of the local support group mainly consisted and led by the planning officers and designers of the council informing the top-down nature of the project process but in addition to the planning officers of the council the local support group consisted of two members of the community, members (academics) from the nearby university, members from the housing associations of the area etc. Figure 4.1 describes the difference between the standard top down UD process and the UD process employed in this particular project.

Figure 4-1- Difference between standard UD process & UD process employed in this project



Since the key factors were expected to be derived by investigating the current top-down urban design process the modified feature in this process may have a certain impact on the KFs derived in this case study. Accordingly, the KFs that emerged from this case study may not represent exactly the results which would emerge by employing a standard top down urban design process. However, as presented in figure 4.1 and stated above the UD process in this project still represents many features of a top-down process where the professionals dominate the UD process. Therefore, the researcher investigated the UD process in this project in detail and section 4.4 discusses the identification of KFs.

4.4- IDENTIFICATION OF KEY FACTOR IN CASE STUDY 01

Having discussed the modified features of the urban design process in case study 01 this section explains the identification of the key factors which lead to the development of the components of the initial UD process framework. The identification of key factors is an outcome of a detailed qualitative analysis of positive & negative features identified in the case study 01. Sections 4.4.1 to 4.4.7 will discuss how each and every KF was identified. The figure below presents a summary of the set of identified KFs.

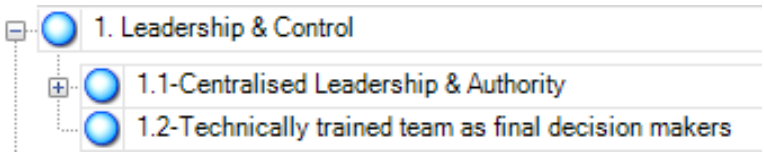
Figure 4-2-Set of KFs' identified

Name	Sources	References
1. Leadership & Control	11	50
2.Collaboration with other stakeholders	10	59
3.Comprehensive urban environment diagnosis	7	17
4.Community Engagement	15	101
5.Cease early decisions	14	26
6.Orientation to the ground	6	11
7. Knowledge Exchange	8	44

4.4.1- CENTRALISED LEADERSHIP & CONTROL

Centralised leadership & control was one of the leading key factor that emerged from the case study. The following figure explains the coding structure that emerged from this particular theme.

Figure 4-3- Coding structure of KF centralised leadership & control



The FOBT 01 describes the UD process of this particular project as being led by the city council, it is mentioned that the city council was the central power able to plan, initiate and execute the activities of the UD process. FOBT 02 supports the finding of FOBT 01 regarding leadership. The statement derived from FOBT 02 was as follows;

> *'Similarly in the previous meeting, even in this meeting the planning team members of the city council led the meeting and they had developed the agenda. The planning team had great control over the planning process up to now and they have had a couple of discussion rounds to develop the identified priorities which lead to the draft action plan'.*

At another point FOBT 01 observed that even after the local support group was established leadership was maintained by the city council rather power being dissolved to the local support group or to key members of the local support group.

FOBT 03 further supported the view of FOBT 01 & 02 by mentioning that even the community consultation workshop was led by the Principal Project Officer of the city council.

Based on the statements above it can be noted that the leadership of this particular UD process was more centralised to one authority rather than powers being devolved to several authorities or a group of people.

However, the key questions that emerged from this issue are;

- Is it a good feature to maintain a centralised leadership?
- If so how can it be done?

Accordingly FOBT 01 states that,

> *'Since the council had the leadership it was really helpful to attract other parties to the process. Their strong leadership provided a clear picture to the other parties, so they had no hesitation in participating in the project activities'.*

FOBT 01 further mentioned that the key project leader had good control over the project, and therefore, they knew the order of the project process and were able to execute the process properly without creating any delay.

FOBT 04 clearly approved the centralised leadership in this process by stating:

> *'The control and authority, or let's say the leadership, that the planning team of the council held was really good. This gave the idea that the planning process should be handled or authorised by one particular party all the time as otherwise the whole process may become redundant'.*

The statement of FOBT 04 was strengthen by the interview with the Principal Project Officer (PPO), who mentioned that it was extremely necessary to have the power and leadership so as to be able to maintain the smooth flow of the UD process and make sure the process is timely oriented. Also the PPO further explained *'in previous projects we tried to devolve the leadership within a stakeholder group, but it failed; engaging stakeholders is one thing, but*

decentralising leadership among the stakeholders is a different story.'

Community Interviewee 'C' did not directly mention anything about centralised leadership, but had no complaints about having a strong central leader or the composition of the key project team in the UD process and this was indirectly supported by the following statement;

> *'Appreciate they had a support group which represented two of our community members, which is really good but communication flow from them to us (other residents) was not good.'*

Community Interviewee 'B' was not happy with the leadership maintained by the council and had issues about the lack of communication with the community regarding the Community Workshop. As Community Interviewee 'C' mentioned it was a problem of the communication flow from the two members of the local support group to the other residents rather than an issue with the centralised leadership.

Community Interviewee 'E' also had issues with the whole project team regarding the lack of community engagement opportunities. This is a separate issue discussed under the key node of community engagement, however, Interviewee 'E' did not have a direct point of opposition regarding the city council having sole authority.

The PPO mentioned another point about the decision making process in that it is vital to have centralised leadership for final decisions. The statement derived from PPO was as follows:

> *'As the central leader we kept our authority to take the final decisions, but we should do it tactfully without harming the ideas of other parties, however, if the final decision making power does not lie with us we could not manage the process. It is pointless having a central leader just to maintain the flow of the process if the leader does not have the final authority to make decisions'.*

As a whole, community members had strong views about their participation in the process, which will be discussed in the section on KF community engagement. However, though community members had issues about the integration of their ideas into the final product (section 4.4.2) none of them wanted the power to make final decisions to be devolved to their group.

The idea of Community Member 'F' namely:

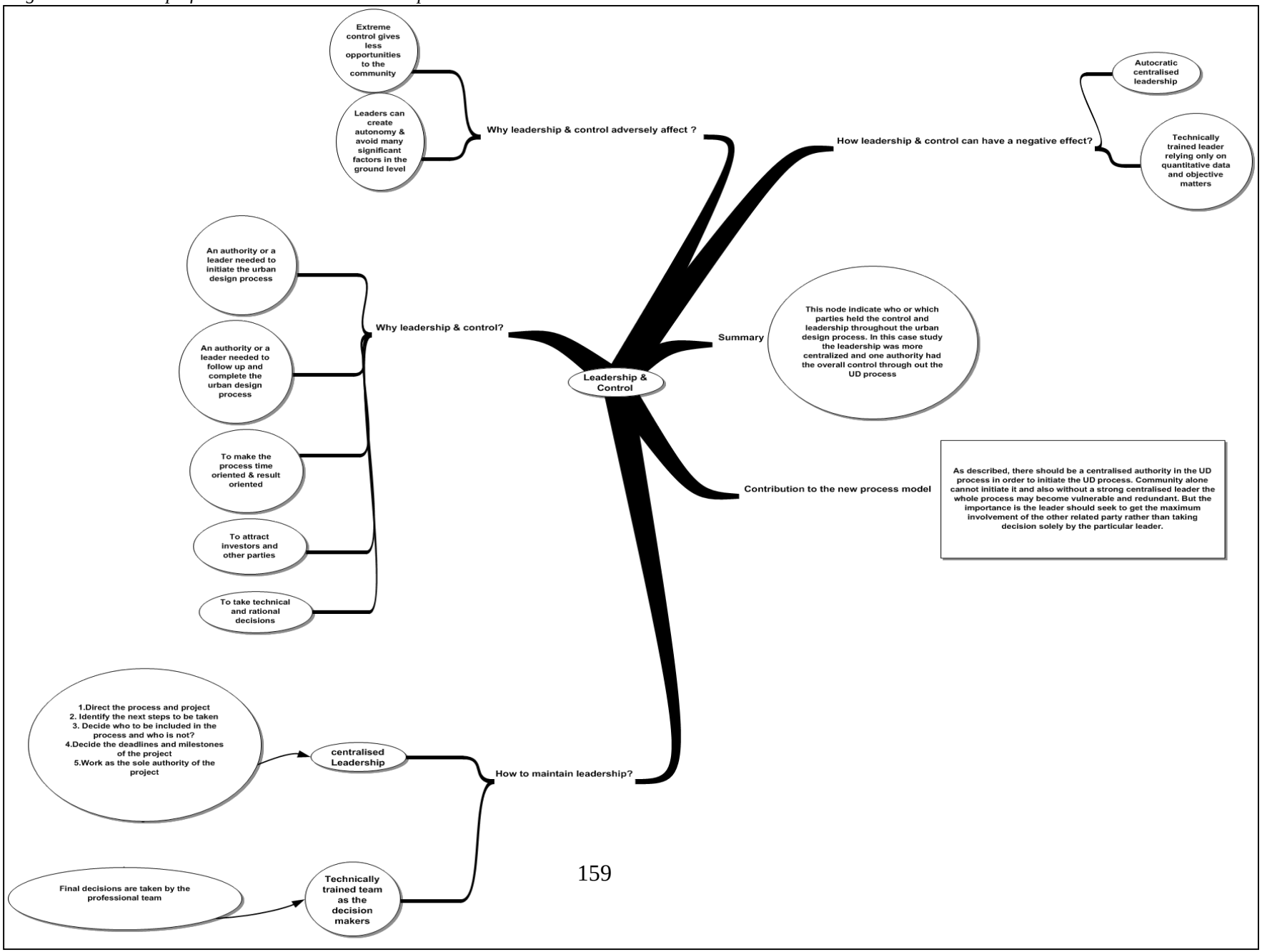
‘if they actually make plans to address the issues we have we will be really happy and live on the estate, we only need to provide ideas, they can decide what is possible or not but we need to see it before they implement it’.

Based on all these arguments and statements it was established that having a centralised leader is a positive feature in a sustainable UD process and it was also revealed that final decisions should be taken by that particular central leader. Lang (2005), Carmona (2014) Cooksey and Kikula (2005) have also described centralised leadership as a positive feature in a UD process.

Based on the findings of the above discussion, it can be noted that centralised leadership is needed in order to initiate and execute the UD process in order to complete the UD process effectively within the required time period. Furthermore, it was discovered that the technical and rational decision making should be taken by the project leader.

The following figure on leadership and control summarises the findings of this key node.

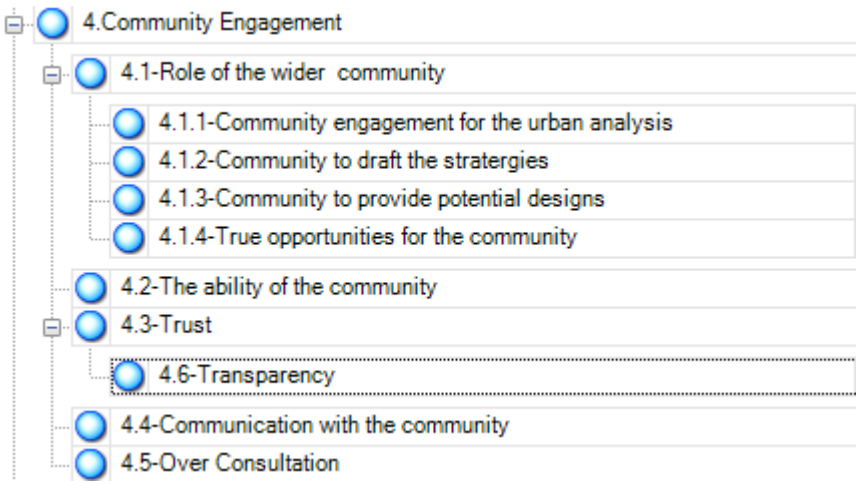
Figure 4-4-Mind map of the KF centralised leadership & control



4.4.2-COMMUNITY ENGAGEMENT & THE ROLE OF THE COMMUNITY

Community engagement is one of the prominent key factor identified in this case study. This section on community engagement discusses the role of community in the urban design process and its importance. The node structure developed for this KF is as follows,

Figure 4-5- Node structure of KF community engagement



The discussion about this KF can begin by highlighting the following statement derived from FOBT 04,

> *'In general they did not engage the wider community actually in the decision-making process: it was just about informing the wider community about what they were going to do in the future'. Furthermore it was stated that 'All the problem identification and the urban analysis was merely based on secondary documents and a couple of visits from planning officers from the city council plus the SWOT of the Local Support Group but the local support group was mainly a combination of professionals rather than true engagement of the community'.*

This indicates that this particular urban design process was a more centrally oriented top down process rather than providing engagement opportunities to the wider community throughout the process.

The following statements derived from FOBT 02 and Interviewee 'A' the PPO inform us about the nature of the community engagement activities which were conducted.

FOBT 02 stated:

> *'The draft action plan was developed and then a discussion was held regarding conducting the public participation workshop'.*

Interviewee 'A' stated:

> *'After drafting the local action plan we held the community engagement workshop to finalise the draft action plan'.*

Based on these findings it is clear that community engagement in this process was limited to the latter stage of the process, when the project team conducted a community workshop in order to inform the community about the proposed actions (solutions) for the area and to obtain their comments about the prepared design solutions before finalisation of the plan.

However the field note from FOBT 02 appraises us of a particular feature in the process regarding community engagement,

> *'Deviating from the standard urban design process this process had a different step which was the engagement of two community members as the knowledge ambassadors in the analysis and strategy generation.'*

The above statement indicates that although this process offered less community engagement opportunities to the wider community, two community members had the opportunity to participate in the urban design process.

As discussed above it is clear this particular project had a small amount of community engagement, but there were still many unanswered questions remaining regarding community engagement and the role of the community. The following are some of the questions which emerged from this point:

- Has this type of community engagement created issues?
- Is it necessary to engage the community throughout the UD process?
- If so, when and how is the community to be engaged?
- What is the importance of community engagement?

The viewpoints from the community interviews have established strong ideas about community engagement. As per Community Interviewee 'B' they would like their engagement in the UD process to be not only the identification of problems but also to discuss the current issues. Furthermore, the community member explains the particular reason behind their interest to engage in problem identification and urban analysis as follows:

> *'As the people who actually live in this area we know the real issues in the area better than the officers who come from the outside, so we can tell the exact problem to the planning officers.'*

The community member of the interview B further explained:

> *'As the people living in the particular area, we know the actual problems so it's always good to include the community in their planning process, but what happens is strangers to the area analyse our problems and issues which are based on a couple of field visits or by referring to their reports but do not come to us to ask what our problems are.'*

The idea of the Interviewee 'B' has been justified by Interviewee 'C' as follows:

> *'Especially, I would help them to identify the problems of the area; we are capable of relating the issues about our own area*.'

The idea of Interviewee 'C' has been similarly reinforced by Interviewee 'E' who observed:

> *'If they consider our ideas we can help them to identify the problems in the area, because as we live in the place we can tell about the place from our life experience. We can be a part of the analysis of the urban environment. For example; we can relate a particular problem, how it started and how it evolved etc., and we can do this just by being part of this community. So we are experts at telling them the exact problems of the area.'*

The idea of Community Interviewee 'F' further strengthened the ideas of other community members and expressed the following:

> *'I will engage myself and help the planning officers to identifying the problems of the area, basically I can help with it as I know what's happening here, what crimes are happening here and why they are happening, etc. So I can be a useful resource to help with that.'*

Furthermore, the Community Interviewee 'F' suggests that there should be a separate stage in the urban design process to allow community involvement in the urban analysis by stating:

> *'Maybe we should have a stage where we tell them our problems and issue, because as the people who live in the area we know what is actually happening and if they actually make plans to address the issues we will be really happy and live on the estate.'*

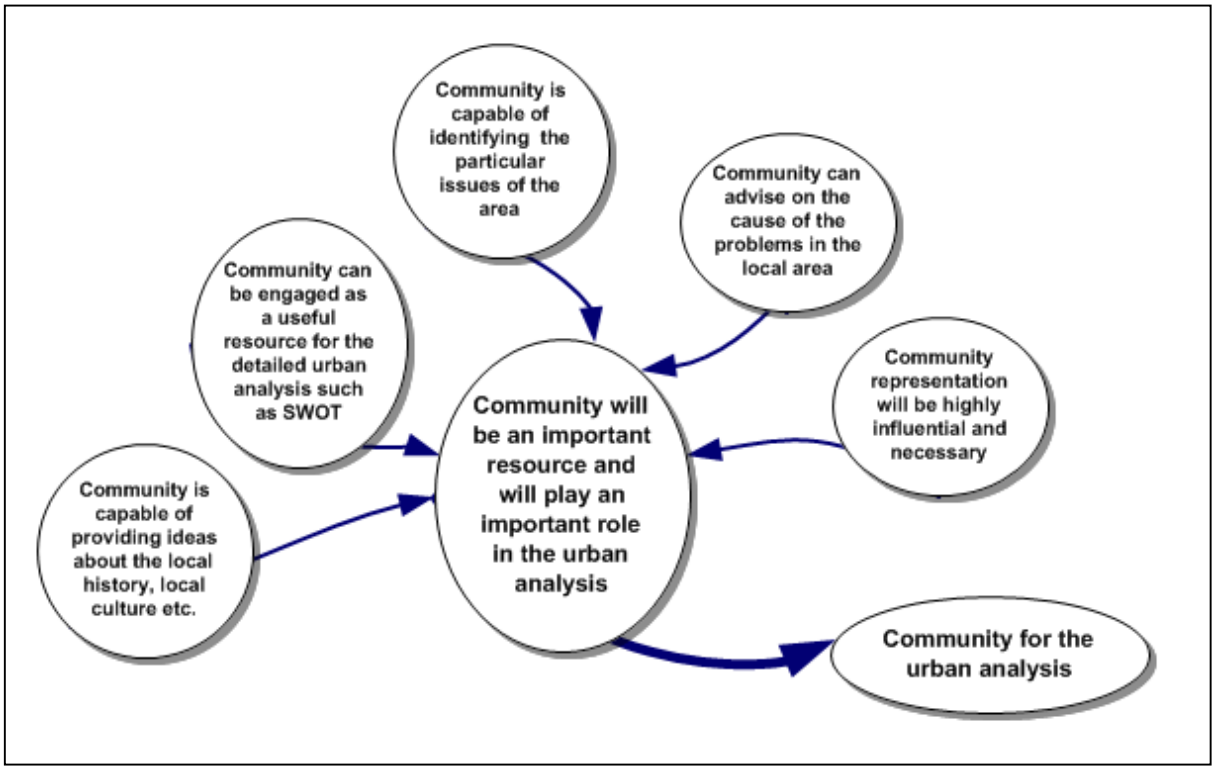
The findings above inform the need for community engagement in the UD process at the urban analysis stage. However, the Interviewee 'E' did not directly support this argument believing that urban planning and design is solely a duty of the professional actors. However, Interviewee 'E' is not against community engagement at the urban analysis stage:

> *'if they come to my home and ask what the problems are in the area I may say this and that, but do not want to spend my time being in that particular kind of workshop as I do not think I am expert enough to comment on some issues under discussion and the project team are experts and this is their responsibility. We can just relate our key issues if they visit our houses'*

On the other hand Interviewee 'A', the PPO, did not directly support wider community engagement at the urban analysis stage. According to the viewpoint of the Principal Project Officer, community engagement on urban analysis is best undertaken in the UD process, but the PPO does not support wider engagement as it is time consuming and costly, and therefore, the PPO supports having representation by the community via the local support group for this particular project but not to engage the wider community. Even though Interviewee 'A' did not support wider community engagement in urban analysis the discussions developed throughout this section show that the community can play a strong role at the urban analysis stage in the urban design process. The need for engaging the community for urban analysis has been identified by many authors and researchers as described in detail in section 2.4.5, among them Boyko et al. (2005), who have stated that the needs of the area should be identified by the community and they should be given ownership to identify the problems and issues of the area.

Based on the findings from this discussion the following figure explains the role of the community at the urban analysis stage:

Figure 4-6- Role of the community at the urban analysis stage



After assessing the wider community's role in the urban analysis the following section analyses the wider community involvement in the strategy generation phase. As already described in figure 4.1, in this particular project, the wider community was engaged only at the latter stage of the process and was involved in informing the community about the draft plan. The data regarding the involvement of the community in the strategy generation was mainly derived from the community interviews. Accordingly, Community Interviewee 'E' disclosed:

> *'We can help them to find some alternative solutions for some particular problems, but as a community we are not good at technical things so we can just show them the alternatives.'*

The Community Interviewee 'C' does not deny their engagement in the strategy generation but is unsure about their solutions. Interviewee 'C' stated:

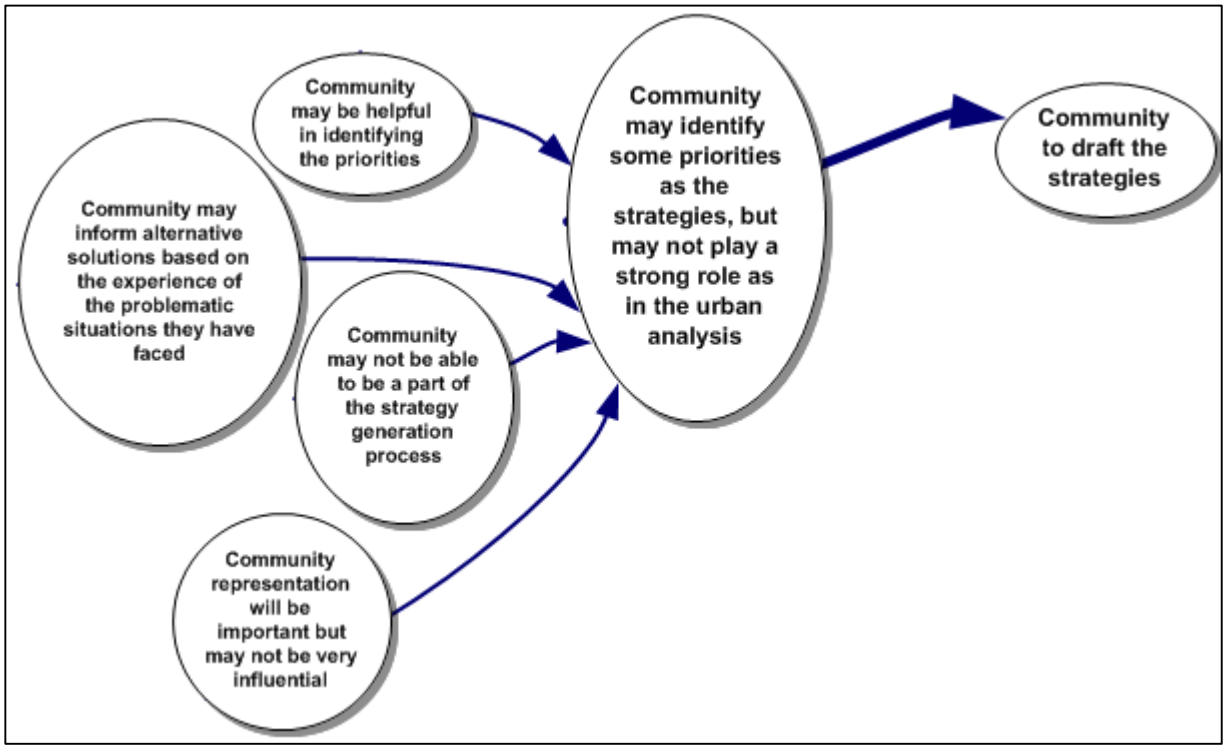
> *'I am not sure, as ordinary people, how far we can comment on identifying solutions or how far we have the technical knowledge and skills to provide new solutions'.*

However, Community Interviewee 'B' directly refutes their engagement in strategy generation and offers the following idea:

> *'so we can identify the exact problem for the planning officers but we are not trained or educated to provide solutions or designs for these problems, when we see the problem they should identify the new strategies'*

Based on this it was discovered that the community may have certain interest in engaging in strategy generation but their capability may be limited and not would be greatly influential as it would in the urban analysis stage. Figure 4.7 describes the role of the wider community in drafting strategies. However many authors have supported the engagement of the community in strategy generation, among them, Carmona (2014) has stated powerful play should be enacted by non-designers in this particular aspect.

Figure 4-7- Role of the community in the strategy generation stage



Considering of the design development and finalisation of the local plan is a phase that was not generally opened to the local community. After seeking the community ideas for the draft strategies the final steps were conducted by the core project team. FOBT 04 described it as follows:

'The consultation ended with drafting the local action plan, which lead only to the strategies identified for that process, after that point the consultation was over and no further community engagement took place to seek community ideas on the design aspect of it of the plan, for example the community's preference on particular designs, local resources available to do that etc.'

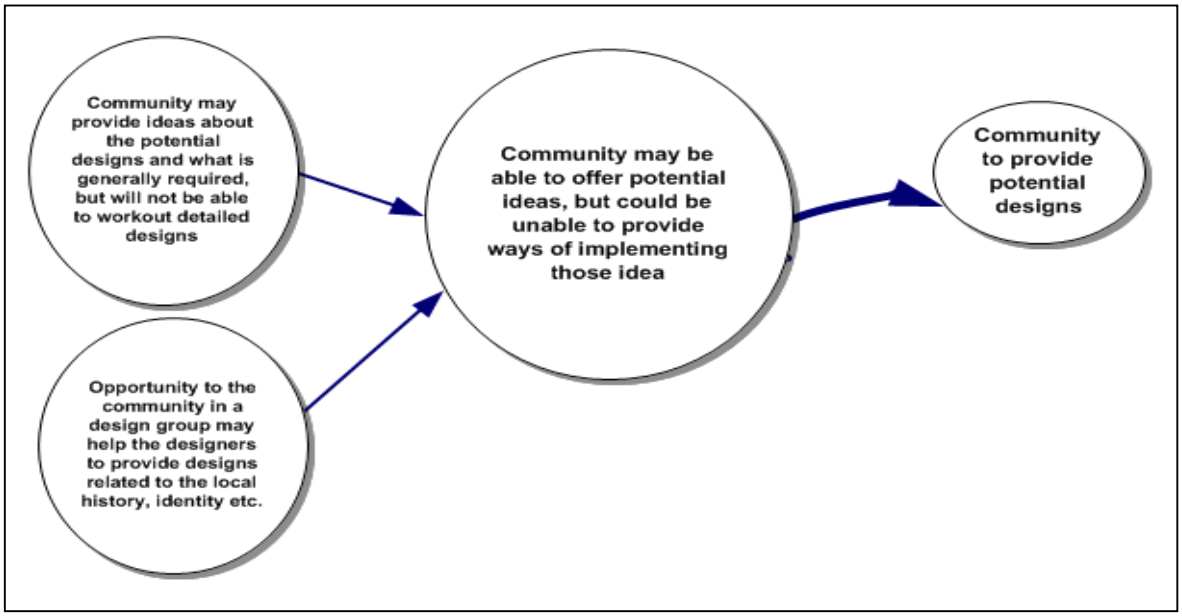
This information reveals that the final design stage of the process was not opened publicly and it was merely work for the core project team. However, the community interviews have also provided their view point on their engagement at the design development stage. Some of the community ideas are as follows:

Interviewee 'C'- *'I may give them details of the actual problems in reality and will suggest some solutions such as saying we need a public park here of we need an open space there etc. As such, I would be helping to identify the problems of the area and may tell some solutions, but do not know to comment on the designs.*'

Interviewee 'F'- *'I could advise that to overcome crime we should provide lighting in all the pedestrian spaces, but I can't say how to do it. I can just tell them the problem, the reason for that and a general solution to overcome the problem.'*

This information indicates that the community does not have a specific interest in engagement in the design development process and accordingly it verifies that they do not have particular talents to engage in the design development. This finding clearly indicates that the community can inform the potential designs and they can help to integrate urban analysis findings in the design development, but apart from that, as the data indicates, design development is a thing that should be undertaken by the professional actors. The following figure describes the role of the community in design development:

Figure 4-8- Role of the community in design development



Under the node structure which was presented at the beginning of the KF (figure 4.5) there is a second category sub-node named 'Role of the Community' (sub- node 4.1). This second level sub node (sub- node 4.1) has got a third level sub-node (sub-node 4.1.4) identified 'True Opportunities for the Community'. Under this third level sub-node two important facts have emerged regarding how to engage community members.

As FOBT 04 explained, community engagement was limited to informing the wider community about the spatial changes which would take place in the area. Community Interviewee 'B' describes community engagement should have been done as follows:

- *'They should have allow us to actually participate in the process rather than inviting us to say Yes or No to what they have already done'.*
- *'And also that they should have integrate our ideas into the final products'.*

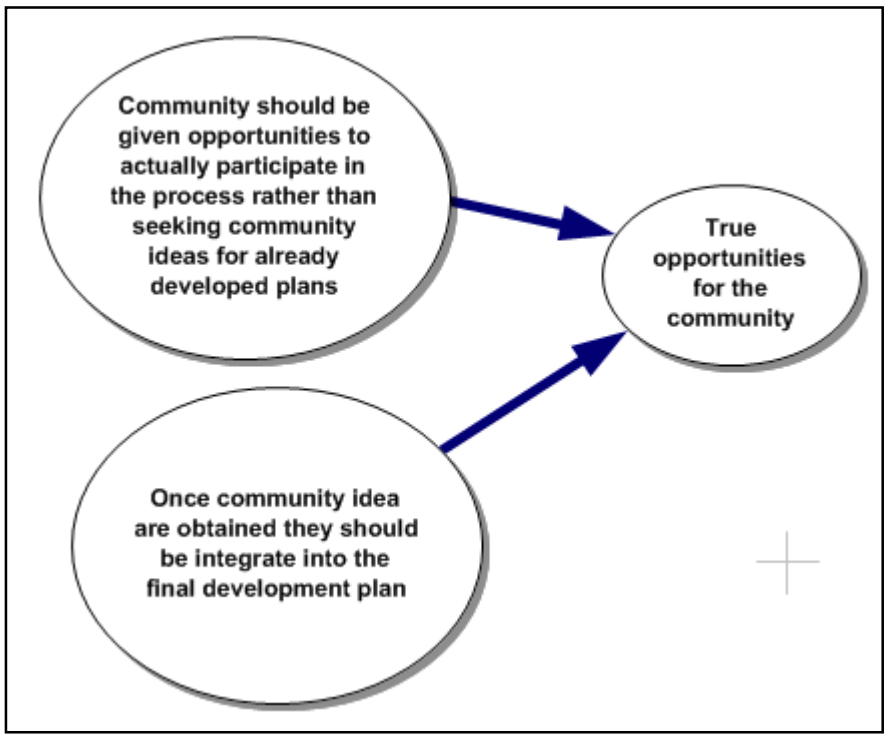
The two conditions raised by Community Interviewee B have been repeatedly noted by the other community interviewees as shown in the following comments:

Interviewee ‘E’- ‘*Engaging the community is just a waste of money as they do not take into consideration or implement what we say, they just come to us to show that they have consulted us’.*

Interviewee ‘F’- *‘the community should be given real opportunities to participate in the process; we should have the opportunity to raise our voice rather than accepting and rejecting what they have proposed’.*

This discussion tells us that the community should be engaged by having a true intention to obtain their viewpoint rather than doing it as a part of the process. Walton et al. (2007) & Cooksey and Kikula (2005) have also stated that the community should be given real participatory opportunities for real decision making rather than engaging them just to obtain data. The following figure explains what should be done in order to provide true opportunities to the community.

Figure 4-9- How to provide true opportunities to the community?



After having a deep discussion about the ‘role of the community’ in the urban design process the next section investigates another second sub-node which emerged from the analysis. According to the information the need for avoiding over consultation of the community was

identified. Even though the previous section provided many results supporting true engagement of the community this node shows that the community should not be over consulted. DR 10 mentioned this issue in following way:

> *'Local residents have been over consulted: often without anything happening as a result / no feedback'*

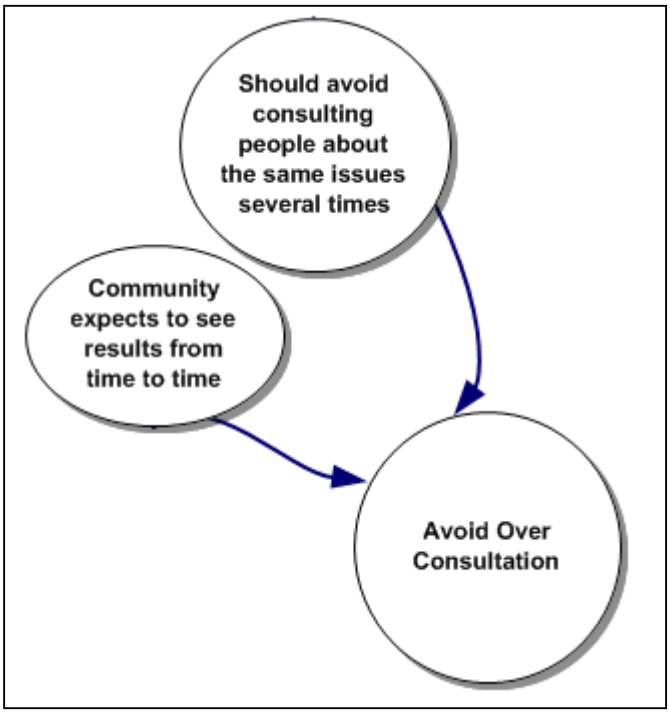
Also Community Interviewees 'C' and 'E' informed that they had been over consulted:

Interviewee 'C'- *'most of the time after they had consulted us things stayed in their cupboard; nothing happened, so why did we participate'?*

Interviewee 'E' - *'We did not participate in their programme; they just consulted us and then the files stayed in their office'.*

Based on this it is clear that it is extremely important to avoid over consultation by not consulting the same set of people several times about the same issues. This also indicates that the community needs to see some results from time to time. The following figure summarises the sub-node relating to consultation:

Figure 4-10- How to avoid over consultation?



However, the sub-node relating to 'avoid over consultation' has a direct link with the sub-node 'trust'. Long-term over consultation, non-integration of community ideas into the final

plans, non-implementation of developed plans has broken the trust of the community with the professional actors.

FOBT 01 explained that in this project the professional actors consulted the community only as a step in the process but not to seek or integrate community ideas. This information has been proved by many community interviewees and the following comments strengthen the need for building trust into the UD process.

Interviewee 'B'- *'They have to implement what we say yes to, not the things we say no to, because in many cases they implement what we say no to'.*

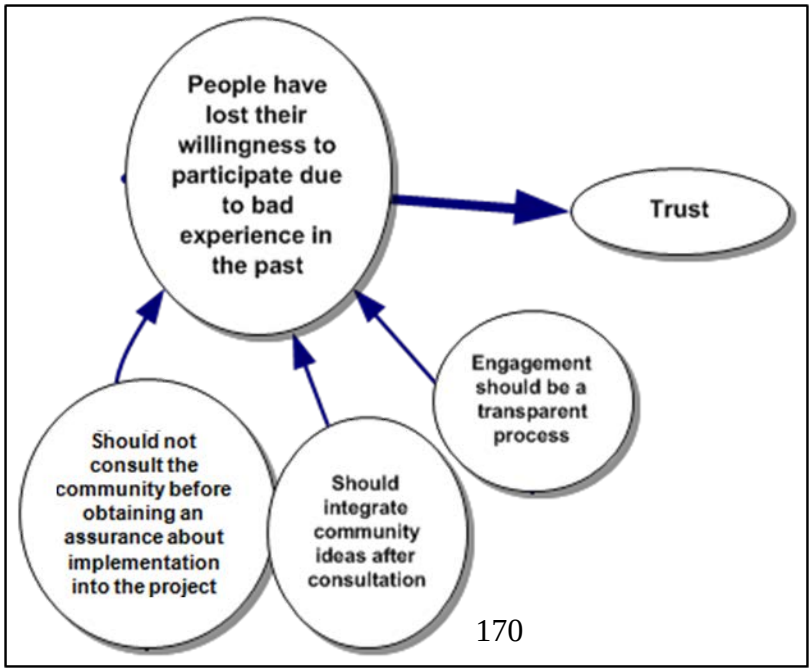
Interviewee 'C' - *'There is no point in participating in such an event if they finally implement what they want to not what we told them. So it's a waste of time.' 'I will not go for such an opportunity as they will not consider what we say in the final plans or in the implementation'.*

Interviewee 'E'- *'We do not participate in their programmes as they only consult us and then the files stay in their office and they implement something that was not what we asked for.'*

In addition DR 10 indicates that the area is not attracting investors and the council had conducted community consultation for years without anything happening as a result. Furthermore, the document reports that the lack of a transparent process is another key reason for the lack of trust.

Consequently there are three issues which emerged from data relating to building trust in a sustainable urban design process and the following figure describes the three key issues:

Figure 4-11- Factors affecting the trust of the community



After exploring the sub-node of ‘trust’ there is another important sub-node which has emerged from community engagement discussions. The particular sub-node discusses the ‘ability of the community’ to participate in the urban design process.

FOBT 04 describes this in detail along with the reasons for the behaviour of the community in participation workshops,

> *‘The other issue is the ability of this community to actually participate in the events, as they are mainly an inactive community relying on social benefits, therefore, they were actually not aware about many things and did not care about their neighbourhood. The way the few members participated in the community consultation workshop proves this, they were just literally sitting at the table rather than trying to participate, it is obvious they may have felt strange participating in this process. The key reason this community did not want to actually participate in this process may be their background; most of them were less well educated and living on social benefits. Probably they were not competent enough to work in collaboration in an urban design process.’*

Document 10 reviews also verified their background supporting the above statement with the following comment:

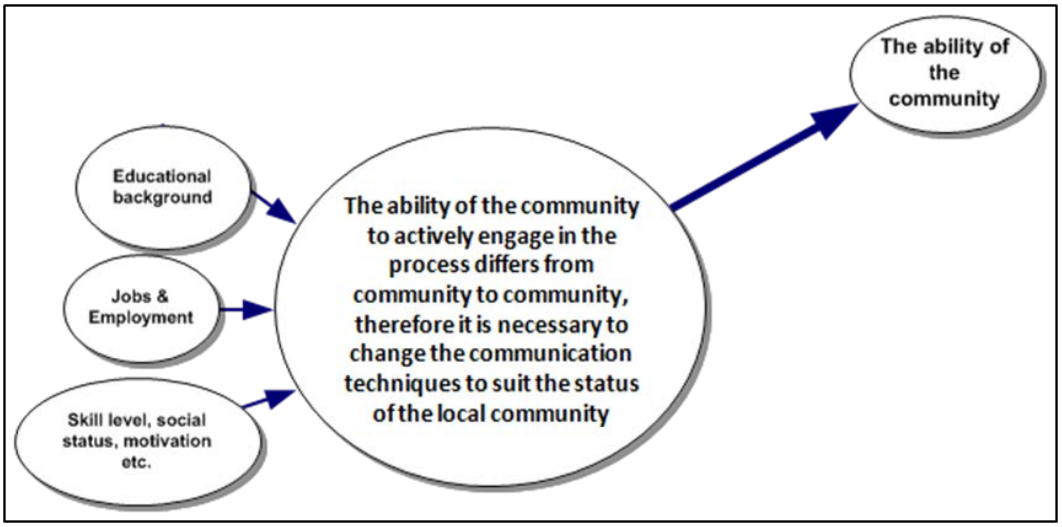
> *‘Lack of skills / education / training / recruitment – including adult literacy problems are some of the key social issues of the area. Furthermore, it was felt that the estate lacked suitably skilled spokespersons that could champion the area and challenge any unfair negative publicity’.*

The above facts show the ways in which the background of the community can affect their active engagement in community consultation processes, therefore, this indicates that the methods or techniques used to communicate with communities should be altered as to suit the background of the community. However, in this particular case it has shown that over-consultation with the community can also be a strong reason for the inactive engagement of the community members as verified by the review of Document 11.

> *‘Initially it was perceived that there was a lack of involvement by local people in decision making locally. However, subsequent discussions clarified that the local residents have in fact been consulted and engaged significantly over recent years’*

Therefore this particular aspect is linked with the sub-nodes 'avoid over consultation' and build 'trust'. But, as revealed by the data, it is necessary to investigate the background of the community in order to alter community consultations techniques and measures. The following figure summarises the particular sub-node 'factors affecting the ability of the community in participation':

Figure 4-12 Factors affecting the ability of the community in participation



This section discusses how to deliver the message to the community about community engagement. The ingress to this particular factor has been made by the following quotation derived from FOBT 03.

> *'The other specific feature is the lower participation by the community for this meeting (community engagement workshop) apart from the two community members from the local support group. Actually, the researcher got to know that the only method of communicating the consultation to the wider community was via the informal invitation to the two knowledge ambassadors who are part of the local support group. The key reason for lower participation could be for this reason as the council did not utilise the wide range of advertising methods for community consultation.*'

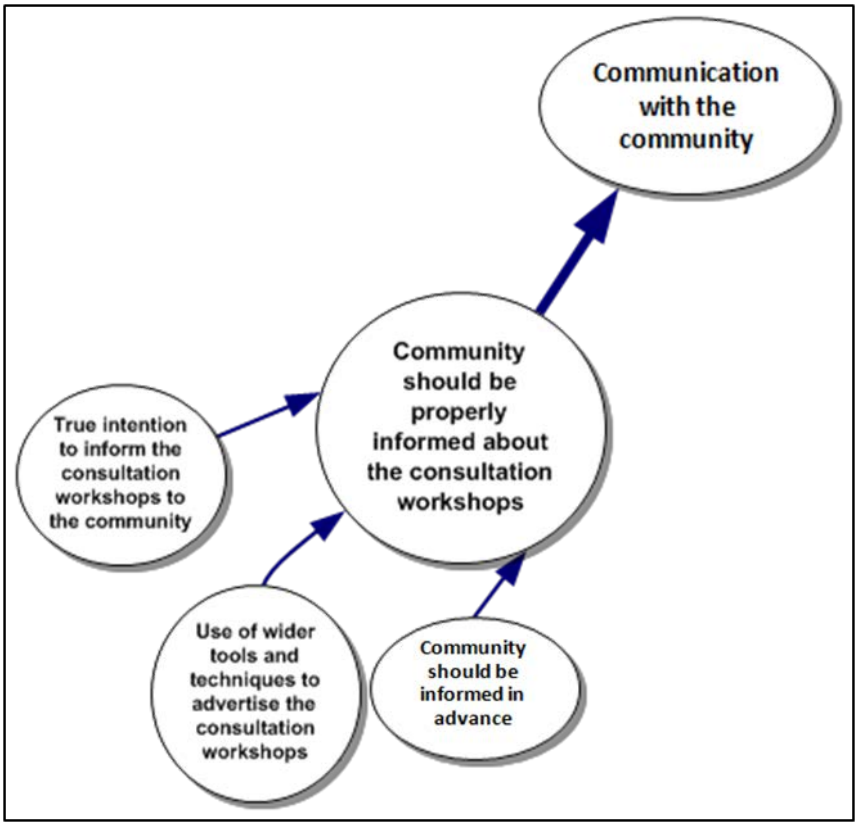
The following are statements derived from the interviews which verify the above assertions:

Interviewee 'B'- *'There was no proper notification for participation in the workshop, we received information about it later from a friend. We didn't see any notices about the workshops; if we had been aware we would definitely have participated.'*

Interviewee 'F' - *'I did not participate in the workshop because I did not know about it; I got to know about it recently. If I had known about it I would have participated '.*

Accordingly, the information above demonstrates that the professional actors did not spend much time or effort on the community consultation workshops as the only method they used to inform the wider community was via the two community members who represented the local support group. This confirms that project teams should have a true intention to consult the community in a sustainable process. In addition the data further reveals that the community should be kept better informed in advance by using a wide range of tools and techniques to advertise community engagement workshops. Figure 4.13 summaries the sub-node identified. Similarly to this finding Bell (2005), stated that communities should be properly acknowledged when they participate in community engagement activities.

Figure 4-13 Communication with the community



The following figures summarise the importance of community engagement and the failures of this case study regarding the community engagement. Each of the issues has already been discussed in the above sections but the figures summarise the findings discussed above:

Figure 4-14- Reasons for the failures of community engagement

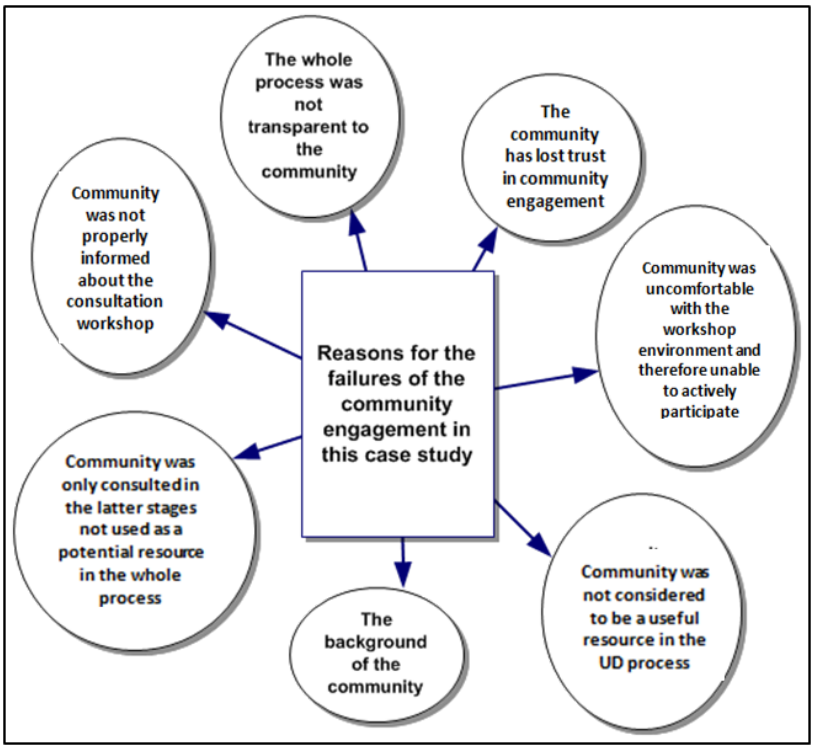
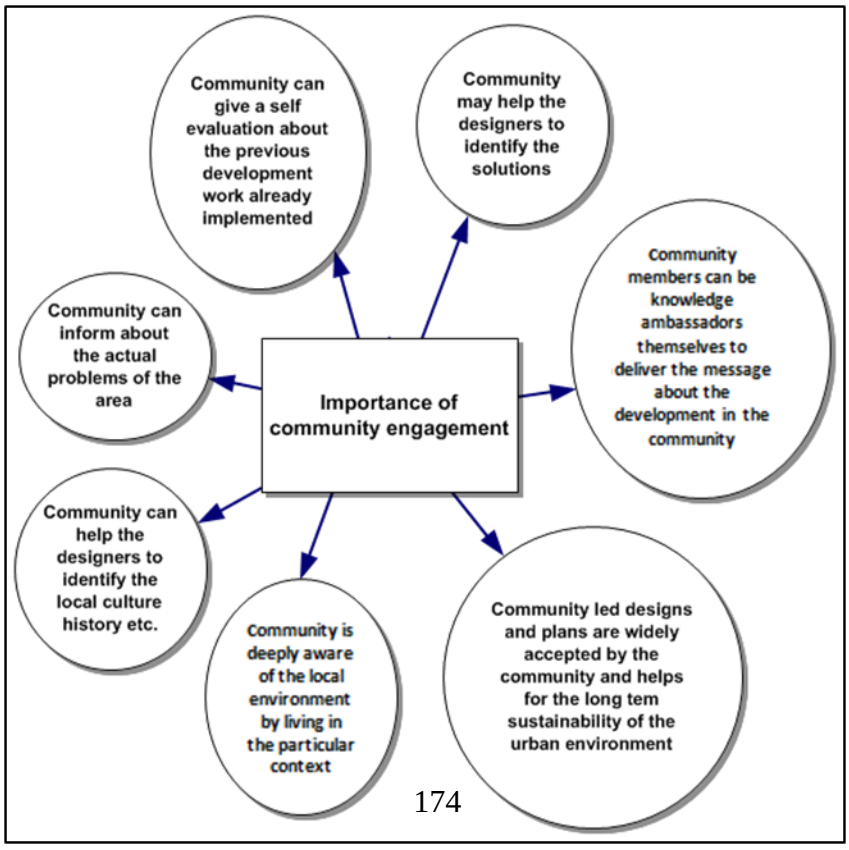


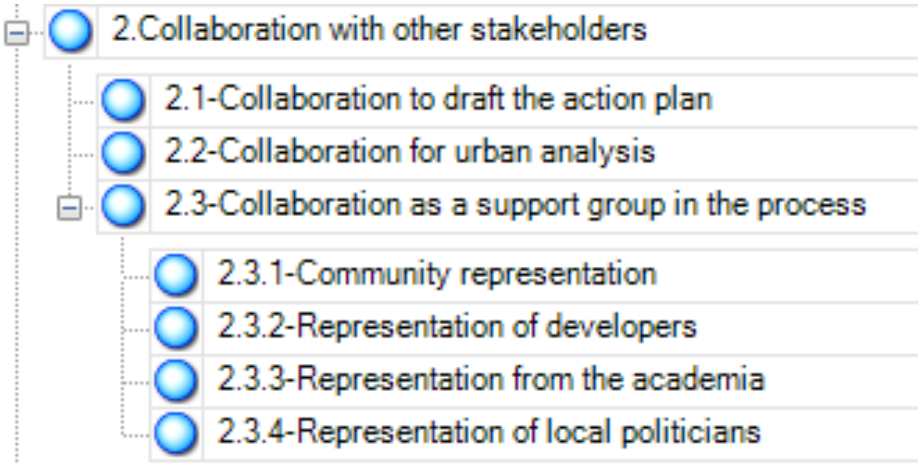
Figure 4-15 -Importance of community engagement



4.4.3-COLLABORATION WITH OTHER STAKEHOLDERS

Collaboration with other stakeholders emerged as another KF in this case study. The following figure describes the coding structure that emerged from data for the main theme collaboration with stakeholders.

Figure 4-16 -Coding structure of KF collaboration with stakeholders



Collaboration with stakeholders is referred to as engaging or obtaining the help of other stakeholders in the urban design process apart from community members.

As the FOBT 01 stated, a team was formed comprising different stakeholders to carry out the activities of the urban design process. The team was entitled 'local support group'. The statement from FOBT 01 is as follows:

> *'They established a LOCAL support group to conduct the SWOT analysis. The composition of the local support group was mainly professional actors who have some common interest in the estate and also comprised members of the planning team of the city council, local developers, local politicians, academic community and two community members'.*

Furthermore FOBT 01 describes, *'Dec 2013 local support group meeting held to discuss about the priorities to be identified for the local action plan by the city council'.*

The above statements confirm that the local support group was established at the urban analysis stage and it operated until strategy generation leading to the creation of the draft action plan.

Even though stakeholder engagement was a feature of this particular project, it is still necessary to assess whether or not stakeholder engagement is a KF in the UD process. Furthermore, if it is found that it is a KF it is necessary to find ways and means to effectively engage other stakeholders in the UD process. Therefore, the following analysis seeks to evaluate the two aspects mention above.

The FOBT 01 reported that having a support group with local political representation was really good as the politicians would be assured about the work to be done in the early stages and would also be aware of local issues. Furthermore, in support of this subject Interviewee 'A' (PPO) stated that;

> *'the local politicians were happy as we gave them representation in the group and they became helpful.'*

FOBT 02 also agreed with this idea and stated that this project had good political support as they had their own representation on the support group.

Furthermore, the FOBT 01 elaborated as follows:

> *'The group included people from construction and the built environment. The participation by university members seemed to be a good idea as they provided some inputs for the identified priorities of the local action plan'.*

Furthermore, FOBT 01 explained that they (academic community) could help to integrate new concepts and good practices in the field which emerged from their researches and other studies.

According to the data revealed by FOBT 02 there was representation by two community members who worked as knowledge ambassadors to share their experience with the wider community. Although this community representation was appreciated by the project team of the city council they did not have an influential role in the support group as argued by the FOBT 02. A quotation to support that argument is given below:

> '*Within a group of technically trained professional actors the two community members did not have an influential role; it would be really good if the representation of the community was increased.*'

This idea is opposed by Interviewee 'A' the principal project officer for the city council who stated that the two community representatives helped us to obtain the community's views

throughout the process. Interviewee ‘A’s’ statement was not supported by Interviewee ‘F’ and agreed with statement of FOBT 2:

> *‘I think our knowledge ambassadors had little power to have their say, because if they had there was plenty of good opportunities to come back and inform us of what they have done for us in our community meetings’.*

This indicates that community representation in the support group was not successful. The key reason for this may be the small number of members representing the community participating in a professionally controlled work environment. However, community engagement and their role emerged as a main node in this analysis and this has been discussed, in detail, in section 4.4.2.

Representation by local developers and contractors was another key factor in this process. As Interviewee ‘A’ (PPO) describes below:

> *‘local contractors who have already had some involvement in work in this area provided us with information about ground level implementation issues'.*

These quotes have been repeatedly identified in FOBT 04 and it mentions that:

> *‘Representation by developers and constructers was a really good idea as they demonstrated the implementation issues of the project in its early stages.’*

In general the FOBT 1 has indicated that stakeholder engagement via the local support group was important for the urban diagnosis and also for the strategy generation. The following statement is quoted from FOBT 1:

> *‘Some of the stakeholders were professional actors but also some stakeholders of the project provided information about some of the current issues and they were able to provide good proposals for the identified priorities especially regarding place making activities. Some team members provided some innovative ideas on how to create a sustainable community and they provided inputs on providing linkages to the area and improving the image of the community’.*

Further the interviewee ‘B’ has stated

'It is good they had represented our housing association in the local support group, the officers in the housing association know our issues'.

Interviewee 'D' supported this issue by stating:

'We appreciate the role of the local support group, as some of the officers in the group actually worked in our housing development work, so they know our problems'

These aspects display the community perspective regarding stakeholder engagement. Accordingly it has been noted that the community has a positive view about the engagement of a stakeholder group in the UD process.

Throughout the analysis of this section it has been clearly established that seeking ideas from a wider audience is a positive feature in a sustainable urban design process and the engagement can be undertaken from the urban analysis stage through to the strategy generation stage by establishing a project group or team who represent the wider stakeholders. Furthermore, it was understood that the composition of the stakeholders to be engaged should comprise the local politicians, representation by people from academia and officers from the construction management discipline such as project developers. Accordingly, based on these findings the researcher has developed a mind map (figure 4.18) determining the composition of the collaborative group and informing how to collaborate with the stakeholders.

Furthermore, as discovered from the analysis one of the most important reasons for stakeholder engagement is to provide the opportunity to seek the views and comments of a wider audience. As stated by Interview 'A', the principal project officer: *'establishment of a local support group has allowed us to get ideas from a wider audience'*. Apart from this, the importance of establishing a collaborative stakeholder group was understood throughout the analysis and, therefore, the researcher has summarised this aspect in the mind map in figure 4.17.

Furthermore, supporting this KF, Bell (2005) has stated that we should work with cross disciplinary partners in the UD process. Also in support of this argument Lang (2005), suggested that opportunities for augmentation with wider stakeholders should be provided in the UD process.

Figure 4-17- Summary of the KF-Collaboration with stakeholders'

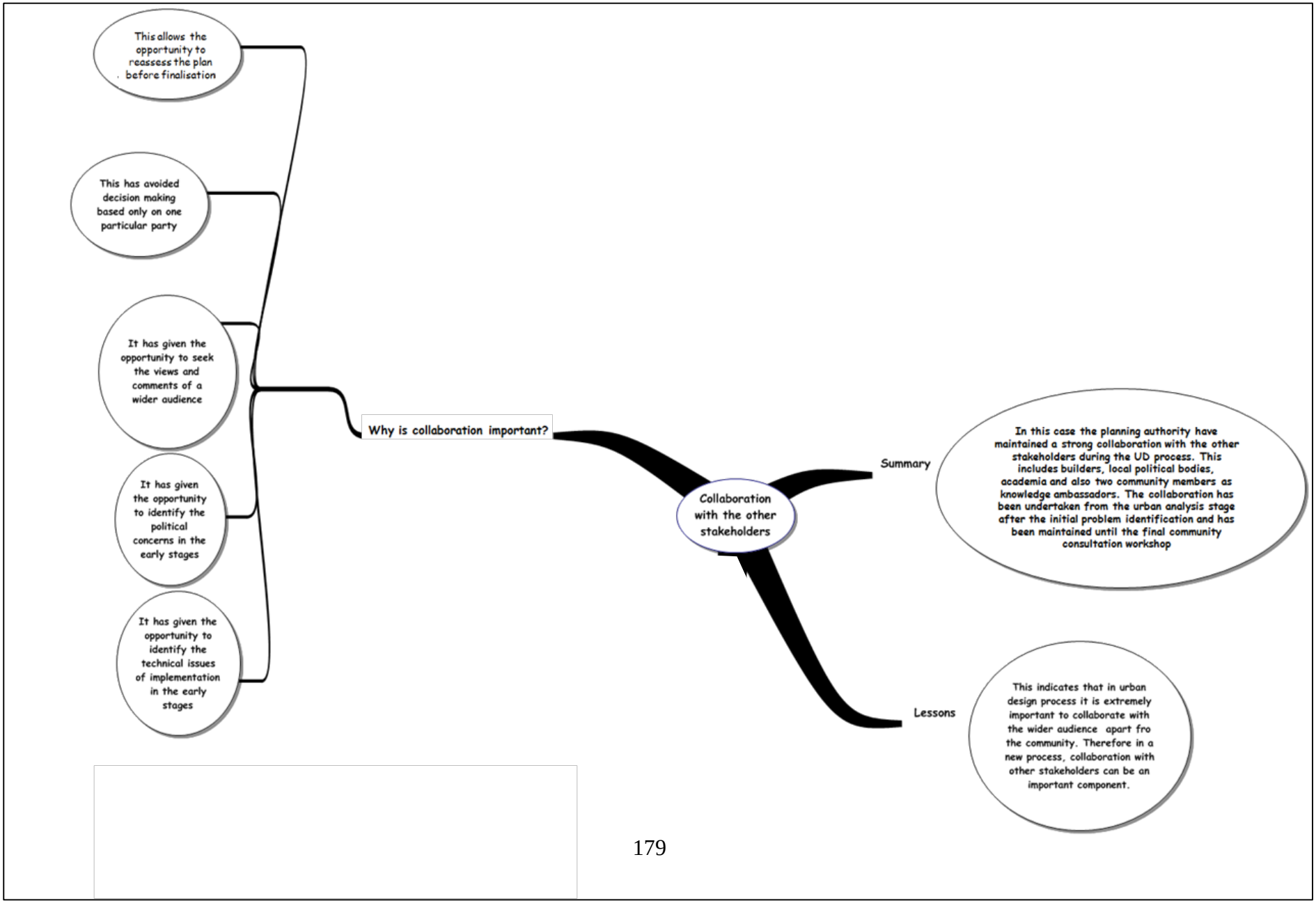
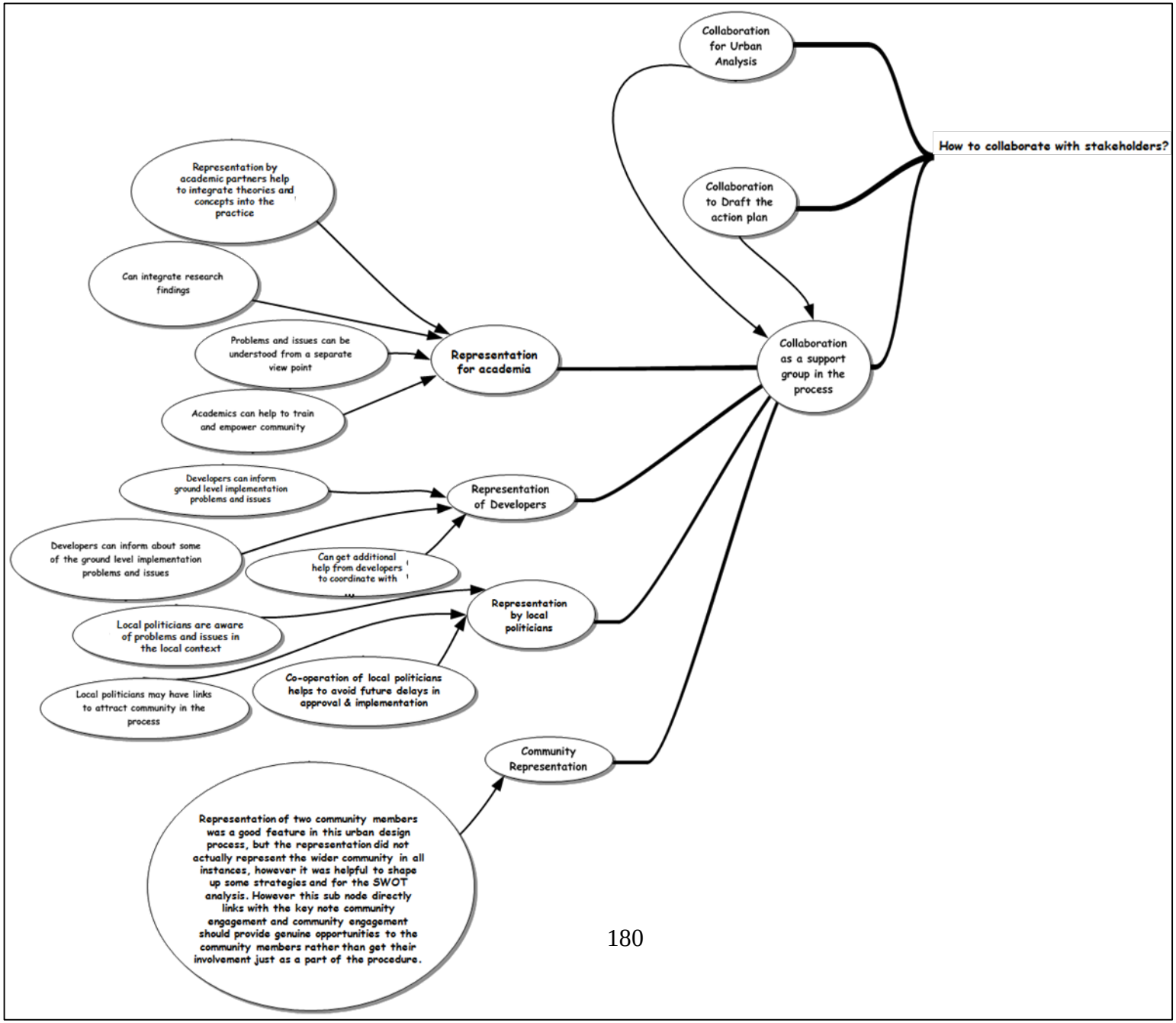


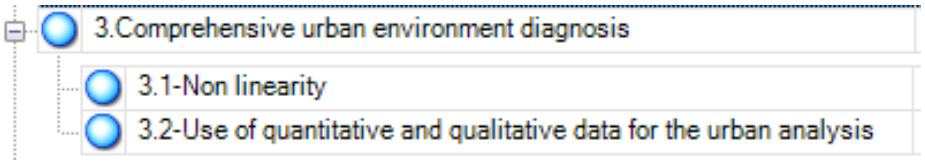
Figure 4-18-- Summary of the KF-Collaboration with stakeholders'



4.4.4- COMPREHENSIVE URBAN ENVIRONMENTAL DIAGNOSIS

'Comprehensiveness' is an outcome of many factors. All the other themes identified in this case study provide inputs to create comprehensiveness in the urban design process. Even though comprehensiveness is an outcome of many factors, in this case study a separate theme emerged on comprehensive urban environmental diagnosis because of two main issues that need to be maintained in the urban analysis of a sustainable urban design process. The node structure that emerged for this KF is as follows,

Figure 4-19-Node structure for KF comprehensive urban environmental diagnosis



As FOBT 01 describes

> '*The problem of identification of the area which was led by the planning team members of the city council based on the secondary data sources. 'The problems recorded in the previous reports were categorised and quantified to see which issues have been repeated by the majority of reports.'*

This indicates that at this stage they relied on quantified secondary data to determine the problems and issues. The idea put forward by FOBT 01 is supported by Community Interviewee 'E' with the following statement:

> *'They have to come to us to ask about the problems rather than identifying our problems in their office by themselves. What they do is read reports and prepare graphs from them to analyse our problems'.*

Opposing to this argument the Principal Project Officer (Interviewee 'A') stated:

> '*To initially identify the problems we analysed previous reports and quantified the data to identify the most prominent issues. This helped us in the initial understanding of the urban area'.*

Furthermore, FOBT 2 explains:

> *'getting the involvement of them (local support group) to conduct the SWOT analysis was a good feature in this process as it gave the views of the wider audience rather than merely based on quantified secondary data analysis by planning officers*'.

Also DR 11 explained that the planning team conducted a social and economic analysis with the help of the local support group and the representatives of the local support group provided sensible data from the ground rather than only relying on previous reports of the area.

The statement from FOBT 02 and DR 11 informed that the project process did not only rely on quantified secondary data as argued by FOBT 01 and Interviewee 'E'.

The arguments of FOBT 01 and Interviewee 'E' and the findings of FOBT 02 and DR 11, including the clarification of Interviewee 'A', develop a good sub-factor to be considered in the UD process. Accordingly, it has been discovered that a comprehensive analysis is required; the urban environment should be analysed by using qualitative primary data and also by using quantified secondary data.

The identification of this sub-factor has been further strengthened by the findings of C. T. Boyko et al. (2006), who state that urban analysis should not only rely on quantitative methods but also needs to focus on the local context. The findings of Fraser et al. (2006), also support this and firmly establish the aforementioned sub-factor;.the local context should be diagnosed in a detailed manner by undertaking qualitative analysis rather than relying only on quantitative data.

FOBT 01 describes that the initial problem identification was conducted by the core project team of the local authority and, thereafter, they moved on to the detailed analysis which was conducted by the local support group. Subsequently, the urban analysis was subjected to another review which was called the peer review.

Interviewee 'A', the Principal Planning Officer explains it as follows:

> *'The local support group identified and analysed the issues in the area and, thereafter, the findings were further assessed by a peer review group. In fact this*

peer review helped us to correct and clarify the information we gathered and also to catch up on what was missing. Basically our analysis was not linier.'

Supporting to the idea of Interviewee 'A', DR 03 explains:

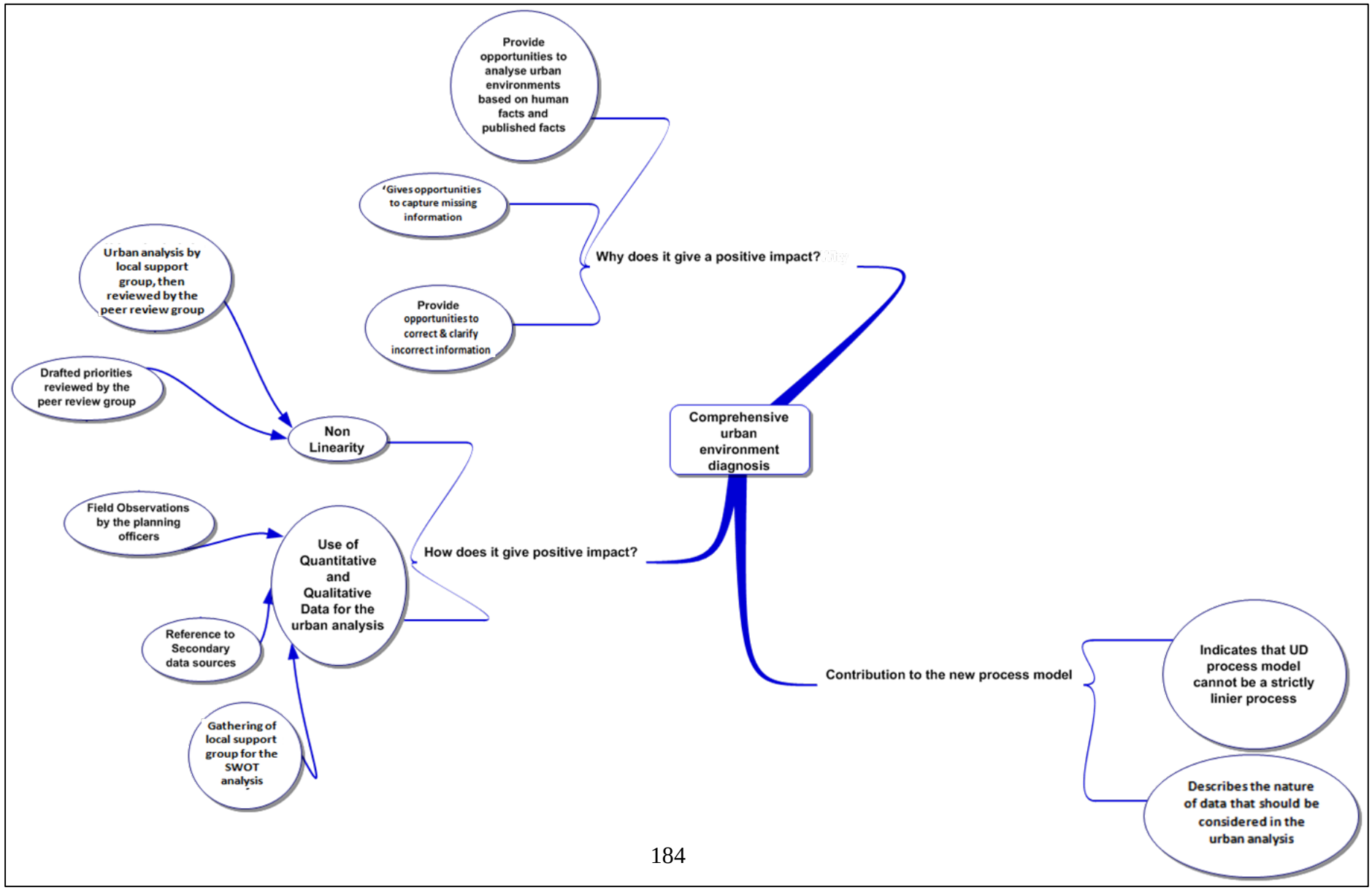
'The feedback of the peer review group was incorporated into the next meeting of the local support group and it was further discussed before finalisation of the urban analysis'.

The discussion above shows that the urban area was assessed by different parties at different instances rather than the urban environment being assessed once by one particular group. The peer review assessment of the urban environment has helped to capture any missing information about the urban environment as stated by the Interviewee 'A'. From the view point of Interviewee 'A' (PPO) this is known as non-linearity. Accordingly, based on the above analysis, a sub-factor emerged which informs that the urban analysis should not be a linier process.

Accordingly, throughout this discussion, it has been found that in a sustainable urban design process it is necessary to have a non linier urban analysis and as well as qualitative and quantitative urban analysis. The combination of these two sub factors creates the key factor of comprehensive urban analysis.

The mind map below summarises the findings for this KF:

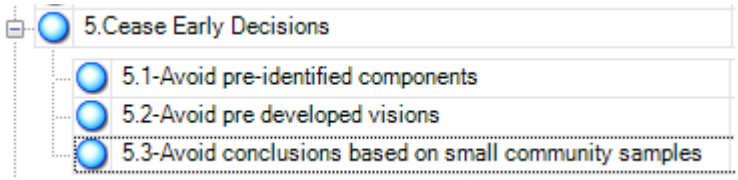
Figure 4-20-Summary of the KF comprehensive Urban Environmental Diagnosis



4.4.5-EARLY DECISION MAKING VS CEASING EARLY DECISION

This KF explains the need for avoiding early decisions in the urban design process before actually observing ground level facts and figures. It shows the necessity for urban design process decisions to be taken only after a detailed analysis of the facts and figures and that the initial findings should be considered only as initial findings not as final findings which lead to the conclusions. The node structure that emerged for this KF is as follows:

Figure 4-21- Node Structure for KF Cease Early Decisions



Under this KF three-sub themes were found which were later identified as the three ways to cease early decisions. The following paragraphs discuss the development of those sub-themes from the data.

As revealed by the Interviewee 'A' the Principal Project Officer for the project, the city council used their previous reports as information sources for the urban analysis rather than reinvestigating the urban environment based on the ground situation. The PPO explained it as follows:

> *'Because we previously worked in the area we can take information from previous reports; we do not need to do a detailed analysis a second time. Also we can study our other project partners' work to support this particular analysis because it was undertaken in a similar urban context'.*

The above statement further demonstrates that they matched analyses from a different urban context to this particular project considering that both projects have similar urban issues. Also, FOBT 01 reports that the analysis was mainly based on previous urban analysis reports rather than conducting a fresh analysis of the area. The statements derived from FOBT 1 and FOBT 2 are as follows:

FOBT 1-*'Apart from their initial field visit analysis, they decided to move forward with analysis work which was done previously for the same location, The idea of the team was, since the urban analysis was done previously in the same location, it was ok to rely on*

previous findings. In view of this they did not conduct a new urban analysis based on the current situation'.

FOBT 2- 'The key issue is the in depth of urban analysis, the local support group conducted it, mainly based on reports rather than taking actual facts and figures from ground level'.

Even though the urban analysis was conducted as described above, mainly based on document sources which were already to hand, the community held strong arguments against it, as revealed by the Interviewee 'B':

> *'As said before, as the living people in the particular area we know the actual problems so it's always good to include the community in their planning process, but what happens is strangers identify the problems and issues based on a few field visits; or they just do it by referring to their reports but do not ask us what the nature of the problems'.*

Interviewee 'E' also supports the argument made by Interviewee 'B' by opposing the view point of the professional actors who are engaged in the urban analysis. The argument derived from Interviewee 'E' is as follows:

> *'I am aware they do not consult us properly, they don't ask about the exact problem. What normally happens is they come to our neighbourhood ask about the problems and issues we have and thereafter they are not seen for ages, and then suddenly they return and start working on something. However, I do not think that they can provide solutions for the same problem that we raised some time ago, because our issues are changing and sometimes a problem we had previously may not be a problem at a later time'.*

Based on this data the actions in the urban design process should be specifically undertaken for the particular project. If the planning or design team analyses the urban environment based on previous urban analysis reports it may create serious issues, the exact problems and issues of the urban environment will not have been thoroughly investigated. Another key issue is that the design team wanted to generalise urban issues which were found in a different urban context to this particular project. Theoretically, Document 01 considers that the urban contexts in partner projects and in this particular project are exactly same and that the initial visible problems and issues are also exactly same. Therefore, as happened on this project the professional actors may generalise urban analysis and develop solutions based

on the generalised urban analysis. But, as the community has revealed this does not work in a sustainable urban design project as every urban entity is unique even though they have similar urban problems. Therefore, in a sustainable urban design process it is necessary to avoid pre-identified components.

As document seven (DR07) informs us the project's vision had already been set up by a core team of professionals before seeking the advice or ideas of community members or other stakeholders. FOBT 04 indicates:

> *'Another key issue of the process is that the professional actors went to the community having already developed vision and strategies, the wider community did not have any opportunity to alter the project vision or scope and even the strategies were mainly fixed'.*

Adding more justification to the above statement another section in FOBT 04 explains:

> *'Communication was the last part of the process before, the approval however, the whole process and how the strategies were derived were not clear to the main community'.*

The above statements indicate that the vision of the project, including the strategies, were previously developed by a key team rather than seeking the view points of the community. As Interviewee 'F' indicates:

> *'We should have opportunities to raise our voice rather than accepting and rejecting what they have proposed.'*

This shows that it is necessary to avoid pre-developed visions when you go to the wider community.

The FOBT 02 describes the representation of the two community members in the local support group. Thereafter, until the community workshop, which was to finalise the project, there was no other community consultation. Subsequently this leads to another issue; they have taken decisions based only on the views of two community members rather than engaging the wider community. The following statement is derived from FOBT 02:

> *'There were many issues raised as to whether these two community members actually represented the community or not?'*

Supporting the above statement FOBT 03 indicates:

> *'And the other specific feature is the reduced amount of participation from the community for this meeting apart from the two community members from the local support group'.*

Interviewee 'A' the Principal Project Officer, was happy about the transparency of the process as the local support group was represented by two members of the community. However, the following statement, derived from Interviewee 'A', confirms that PPO came to final decisions based on the ideas from the two community members thinking that they represented the whole community.

> *'We had two members representing the wider community so throughout our process the community was represented, we always made decisions and communicated with them before we finalised things as they represent the community'.*

The following two responses from the community, derived from Interviewees 'B' and 'C' inform us that there was an issue with taking decisions based only on the input from the two community members:

Interviewee 'B'- *'They continually kept in touch with the two community members, which was good, but at least for the final workshop our participation should have been properly acknowledged'.*

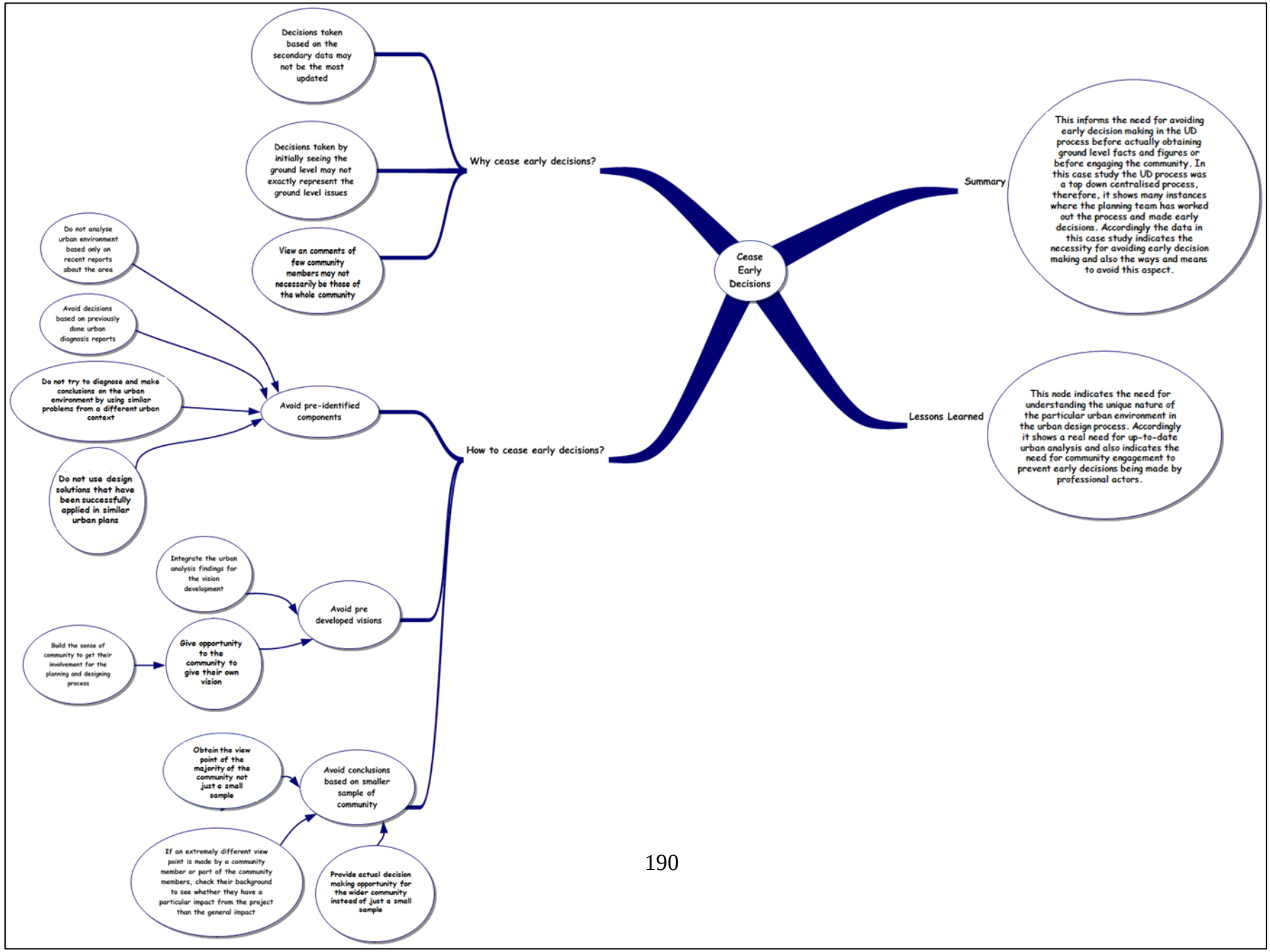
Interviewee 'C' -*'Appreciate they had a support group on which two members of our local community represented the wider community, which is really good; but communication flow from them to us (other residents) was not good'.*

Based on this data it indicates that in a sustainable urban design process it is not good practice to make decisions based on a small sample from the wider community.

In a summary this analysis is directed at establishing the KF of 'cease early decisions', to identify the importance of the KF and to assist in finding ways to cease early decision making. Accordingly, the mind map (Figure 4.22) summaries the whole analysis. Furthermore, some of the literature findings of the Commission for Architecture & Built

Enviornment (2000) & Lang (2005) also support for the identification of this KF. Accordingly, the Commission for Architecture & Built Enviornment (2000) has advised that the use of a blanket policy in the UD process should be avoided. Lang (2005) also states that the UD process should be proceeded upon with an open mind by avoiding initial heads of general solutions.

Figure 4-22 Mind Map of KF - Cease Early Decisions



4.4.6-GROUND LEVEL ORIENTATION & RELATIONSHIP WITH THE COMMUNITY ENGAGEMENT

The KF ground level orientation informs the UD process should be conducted by using ground level facts and figures. This indicates the need to use the community as a strong resource in the UD process and also points towards the need for the project team to collect data and information by visiting the urban area rather than obtaining the information from the previous reports and documents. This KF is directly related to the KF 'community engagement', however, this KF has an additional sub-factor to be considered in the UD process which is data collection by project officers via field visits. Therefore, the researcher has separated this KF but has shown the relationship between this KF and the community engagement KF.

FOBT 01 explains that one of the key purposes for establishing a local support group was to focus on ground level facts and figures. This referred to obtaining data and information from the specific area rather than from secondary sources. The aim of establishing a local support group was also highlighted by Interviewee 'A' (PPO) who described it thus:

> *'I think it's important to have a key aim to obtain data and information from the area itself. That's why we established the support group which was comprised of two community members, local politicians and developers'.*

Furthermore the PPO has said:

> *'The reason is the data are fresh and represent the exact conditions of the area'.*

DR 02 also supports the above statements saying that the local support group was established to obtain data and information at ground level and that ground level information is important in order to make un-biased decisions.

Based on these arguments it is discovered that having a ground level orientation is an important factor in a sustainable urban design process. Even though they encouraged a ground level orientation they could not sustain it throughout the UD project. As described above the Principal Planning Officer wanted to maintain ground level orientation but in one instance she mentioned:

'However since we have been working from the viewpoint that we can take information from our previous reports and we do not need to do a detailed analysis for a second time'.

This indicates that rather than obtaining fresh data at source they relied on previous reports and documentation. This argument is supported by Interviewee 'E' (community member):

'I do not think that they can provide solutions to the same problem that arose some time ago, because our issues are changing all the time. Sometimes a problem that has been around for some time becomes less of a problem'.

However, the statement above from the Interviewee 'A' (PPO) describes about how to maintain ground level orientation and accordingly she has mentioned that the local support group representing local community members, local politicians and local contractors are all a representation of the place on which the project is focused. This informs the use of local people in the urban design process in order to have a good ground level orientation. The community Interviewees 'B', 'C', 'E' and 'F' supported this argument as explained in the KF entitled 'community engagement'. The key node 'community engagement' describes the role of the community in the urban design process; therefore, this sub-factor is linked and represented in the key node 'community engagement'.

Apart from the above FOBT 04 indicates that the project team conducted a small number of field visits to witness the urban environment and their intention was to analyse the ground level real facts and figures. Proving this Interviewee 'A'(PPO) mentioned:

'Also to have a balance on data we conducted couple of field studies to witness the urban environment, integration of community ideas; field visit findings provide a good source of information about the ground level conditions'.

Based on these arguments a conclusion can be realised that it is important to have ground level orientation in the urban design process and this can be achieved by using people as a resource in addition to field studies by project team members. The following figures describe the node structure that emerged and mind map developed for this key node:

Figure 4-23-Node Structure of KF Ground level orientation

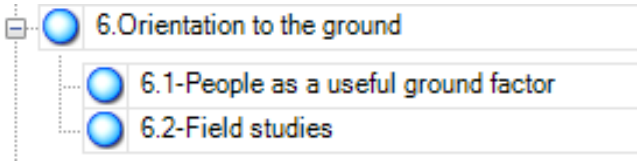
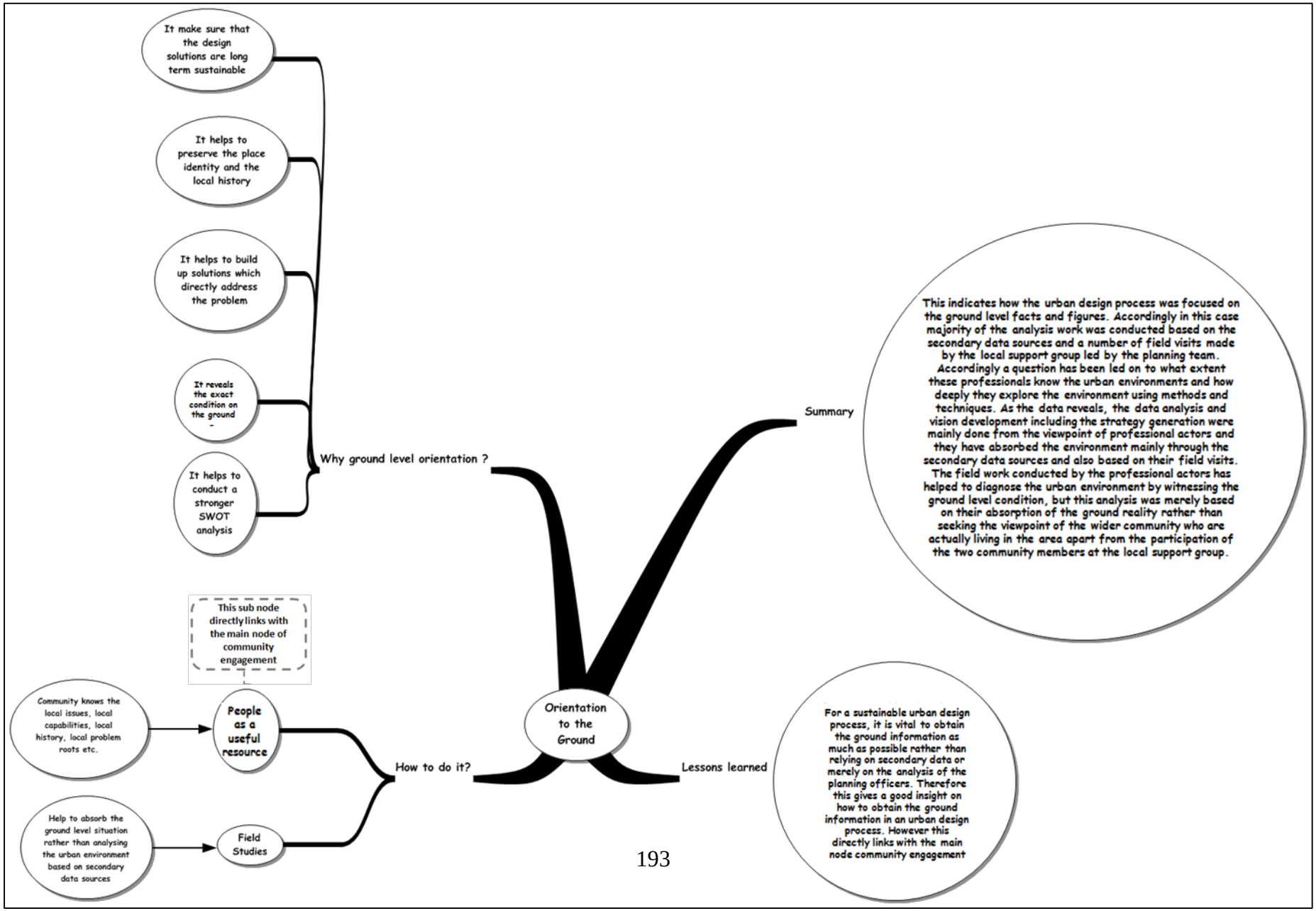


Figure 4-24- Mind map of KF ground level orientation



4.4.7- SPECIFIC FEATURE OF KNOWLEDGE SHARING

Knowledge sharing is another KF that emerged from this case study. The meaning of knowledge sharing in the UD process is sharing knowledge and experience with other partners who are involved in urban development activities.

Interviewee 'A' the Principal Project Officer establishes the idea of working with partners which led to knowledge sharing,

> '*Working in partnership with our European partners was seen as an excellent opportunity to learn from their work and to help us develop and improve our methods and approaches to revitalising key communities'.*

The established idea of knowledge sharing by Interviewee 'A' has been further informed by DR 1, and accordingly it is noted that this particular UD project is under the auspices of a major European project comprised of 10 partners representing 10 countries. Accordingly, DR 02 states:

> *'The partner network has a long track record of tackling similar problems and has been able to share valuable experiences from their practice. Also, the problems are similar in most of the project locations that were identified as target areas for the project'.*

Accordingly, the above statements establish the idea of sharing knowledge with other partners who are taking part in the main project in the European Union.

However, the most important thing is to assess is whether the knowledge sharing was successful in the UD project process? If knowledge sharing was successful how can this be achieved and how can it be integrated as a Key factor to develop the components of the new UD process framework.

DR 5 reveals the experience of one project member, of this particular project, regarding what he learnt through knowledge sharing:

> *'Through collaborating with our European partners, I have learned more in a very short period of time than over many years of being involved with sustainable communities. Specifically, stakeholder involvement, including the use of*

communication channels such as TV and radio'.

In support of the above idea DR 2 explains:

> *'The partner cities have cooperated together and the each party has already learned from each other. We look forward to continuing this valuable cooperation in the next phase of the project'.*

DR 07 describes that the best way to share knowledge is by sharing good practices and by exchanging experience. DR 11 supports DR 07, and accordingly, it is described as:

> *'an exchange of experience and good practices in the field of sustainable urban development is the best way to share knowledge'.*

Furthermore, DR 05 proves the above argument by saying:

> *'by sharing knowledge and good practice across 10 European partner cities this project aims to help inform the development of Local Action Plans which address local issues.*

Based on the above discussion it can be noted that knowledge sharing has become one of the key factor in this case study. However, it is still questionable whether this KF can become a factor which leads to building a new urban design process framework as this opportunity for sharing knowledge with other project partners is unique to this particular UD project., Not every UD process will get the opportunity to work with project partners; therefore, it may not be possible to include knowledge sharing in an urban design process framework. However, some features of this KF may support the building of a component for the new UD process which will be discussed later in the chapter (section 4.5.7). The following figures describe the node structure developed for this theme and the mind map summarises the findings of this particular KF.

Figure 4-25-Node Structure of KF knowledge sharing

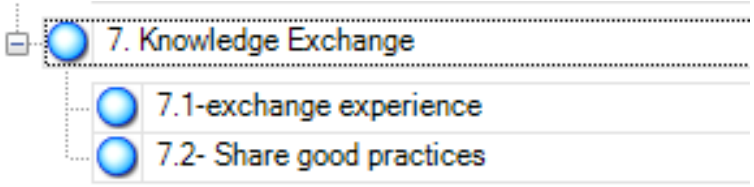
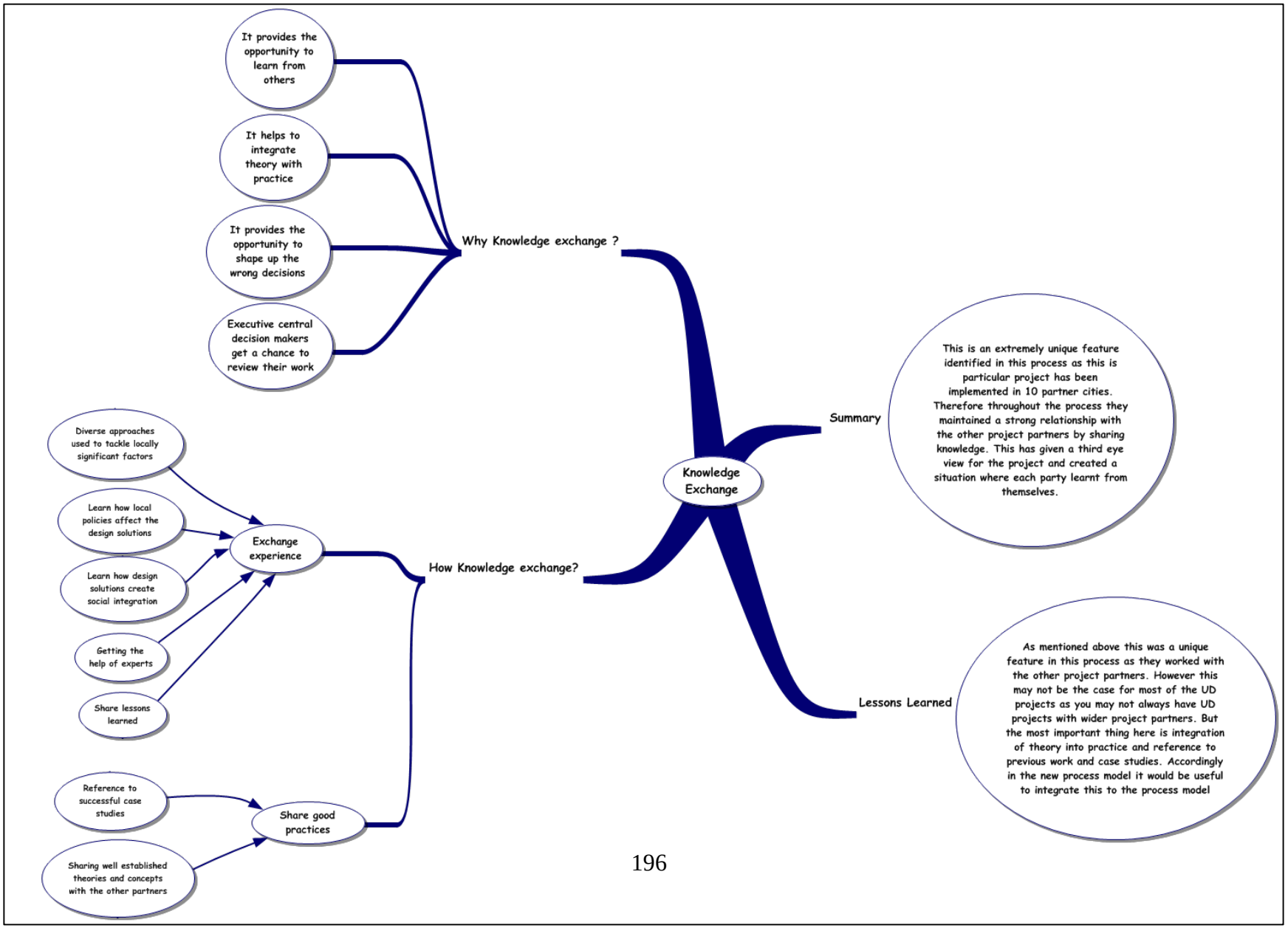


Figure 4-26Mind map of the KF Knowledge Exchange



4.5-TOWARDS A COMPREHENSIVE COMPONENT FROM A KEY FACTOR

Section 4.4 established the key factors identified in case study 01. Each key factor led to the building of comprehensive mind maps which were presented for each KF. The mind maps explain the importance of each key factor and the actions that need to be undertaken to accomplish each KF. The importance of each KF is led by the question of why each KF is needed; and those actions which need to be undertaken to accomplish each KF is led by the question of how to accomplish each KF. Critical combining of these two sections create the components of the UD process and is incorporated with the actions to be taken to achieve each component and the authority responsible for each component. Furthermore, each component provided information about when those components need to be fitted into the different phases of the urban design process. Accordingly, in this section the researcher has combined the 'why' and 'how' aspects in each key factor to drive the components with the actions and then the researcher has introduced those components into the standard stages of the urban design process. The standard stages of the urban design process were established in section 2.5.1. The standard stages are listed below:

1. Preparation stage

2. Problem Identification

3. Detailed Urban Analysis

4. Vision mission and Strategy generation

5. Design Development

Accordingly, in the following sections (4.5.1-4.5.7) the researcher explains the establishment of the components from the KF's at each stages. The explanation appears under each KF and within each KF is an explanation of how the components have been introduced into the stages in a standard UD process. As described above, the researcher has specifically used the 'how' and 'why' sections from the mind maps developed for each KF to establish the components.

4.5.1- COMPONENTS ESTABLISHED BY KF LEADERSHIP & CONTROL

The KF 'leadership and control' (figure 4.4) asks the question; 'why leadership and control? It establishes that an authority or leader needs to initiate the UD process. Furthermore, in the section 'how to maintain leadership?' the need for a centralised leader is identified in the UD process to initiate the UD process and also to execute the process smoothly. The researcher combined those two sub-factors and built the component known as 'creation of a central leader'. The central leader has the power and authority to initiate and execute the UD process. As the analysis stated this component should be established at the preparation stage of the UD process. This component leads to creation of another component entitled 'make sure the process is time oriented and result oriented'; as identified in the KF this also can be undertaken through the provision of power to a one particular body at the beginning of the process. In addition the need for centralised leadership showed that the central leader should have the authority to decide the partners to be included in the UD process which forms the project team. Accordingly, during the preparation stage the following components are actions that need to be established for the KF 'leadership & control':

Table 4.4 Components derived from KF of leadership at the preparation stage

Component	**Action**	**Through/ Responsible authority**
Creation of centralised leader	Provision of power and authority to a particular governing body to initiate the process	Authorised professional body
Decide the deadlines & milestones of the project	Provision of power and authority to a particular governing body	Authorised professional body
Decide the partners to be included in the project	Provision of power and authority to a particular governing body	Authorised professional body

Furthermore as was discovered under the KF of leadership a central leader is required not only to initiate the UD process but to maintain the smooth flow of the UD process. Accordingly, the power and authority assigned to initiate the UD process continues until the UD process comes to an end.

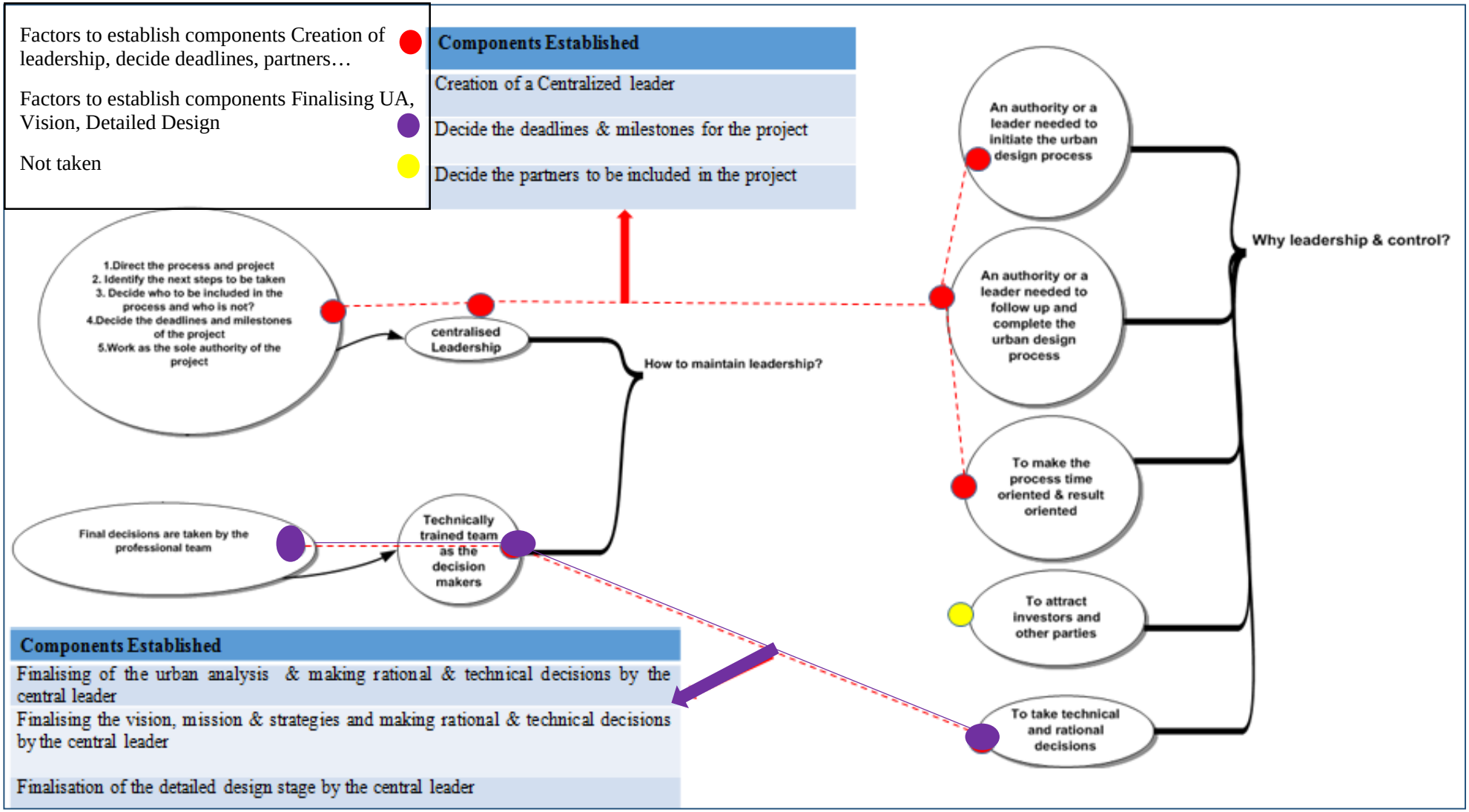
The section of the mind map relating to 'the importance of leadership and control' demonstrated that strong leadership is needed to make technical and rational decisions thereby proving this action in the section 'how to maintain the leadership?' It was determined that the central leader should make the final decisions in the process rather than devolving that power to other authorities or to a set of authorities. This concept established the component 'taking the final decisions by the central leader'; however, this component is repeated at three main points which are at the end of the urban analysis, the end of the strategy generation and, finally, at the end of the design development process. The following table summarises the component with the actions required:

Table 4.5- Components derived from KF Leadership under three main stages

Component	**Action**	**Through/ Responsible authority**
Finalisation of the urban analysis and taking the rationale and technical decisions	Central leader or an authority taking the final decisions	Authorised professional body
Finalising the mission's vision and strategies and taking the rationale & technical decisions	Central leader or an authority taking the final decisions	Authorised professional body
Finalisation of the design development stage	Central leader or an authority taking the final decisions	Authorised professional body

Figure 4.27 summarises the establishment of components under the KF 'leadership & control'. However, the sub-factor marked with a yellow circle 'to attraction other parties & investors' did not support being established as a component as it was not clear how the central leader could help to attract other parties and investors.

Figure 4-27- Development of components under KF leadership & control



4.5.2- COMPONENTS ESTABLISHED BY KF COMMUNITY ENGAGEMENT

Community engagement is one of the prominent KF identified in the analysis. Accordingly, this KF is lead to the creation of several components in the UD process. Under the KF 'community engagement' the researcher developed several mind maps (figures 4. 6-4.15). The mind maps indicated five steps for successful community engagement. The five steps are:

- Communication with the community
- Building up trust
- Identify the ability of the community
- Avoid over consultation
- Offer true opportunities to the community

From the above mentioned five steps, four have contributed to the creation of three important components for the preparation stage of the UD process. The combination of 'communication with the community', 'avoid over consultation' and 'building trust' along with the key reasons identified for the failure of community engagement in this project(figure 4.14) have established the two components 'Development of a complete community communication plan' and 'Building trust in the community. Thereby the 'identify the ability of the community' and the key reasons identified for the failure of community engagement in this project (figure 4.14) have established the component of 'Build up trust in the community'

Figure 4.28 concisely presents the establishment of the three components for the preparation stage. The components established for this KF are as follows:

Table 4.6-Components established under the KF community engagement for the preparation stage

Component	**Action**	**Through/ Responsible authority**
Development of a complete community communication plan	• Use of wider tools and techniques to advertise the community workshops	Core Project Team

	• Identify dates & times for the communication workshops & inform the community in advance • Make sure that the community is not repeatedly consulted about the same issue	
Build up trust of the community	• Show a plan of a transparent community engagement process • Consult community only when it is confirmed that the project can be executed (ex-have funds) • Provide the assurance that the community ideas are integrated at the end of the process • Provide implementation plan & phases of the implementation (community expects to see some results from time to time)	Professional actors

Subsequently, components were established for the urban analysis stage. Accordingly, three components were established from this KF for the urban analysis. As discovered in this case study the community was not considered to be a useful resource in the UD process and they were engaged only in the latter part of the UD process after the draft plan had been developed. 'Community was not considered as a useful resource' and 'they were only considered in the latter part of the UD process' are two reasons out of the seven reasons, for the failures of the

community engagement in this case study (figure 4.14). Furthermore, in the analysis the importance of community engagement in the UD process was established (figure 4.15). Accordingly, a combination of the sub-factors in these two figures (figure 4.14, 4.15) assisted to establish the component 'conduct a detailed urban analysis by using the wider community'. Furthermore, it was discovered that the community is able to inform the project team about local history, culture etc. at the urban analysis stage (figure 4.6) and this led to the establishment of the component 'identify the local specific features through the wider community'.

Finally, under this KF it was discovered that there is a need to integrate community ideas for the final urban analysis (figure 4.9) this sub factor assisted in the establishment of the component 'integration of community ideas to the final urban analysis'. The table below describes the components established and the figure 4.29 explains how each of the sub-factors are interrelated and how the sub-factors assisted to establish the three components at the urban analysis stage.

Table 4.7- Components established under the KF community engagement for the urban analysis stage

Component	**Action**	**Through/ Responsible authority**
Conduct a detailed urban analysis ex-Swot using the community, community has shown a specific interest and capability to engage in this action	• Ensure enough community representation • Make sure that community has an influential role in it.	Wider community engagement
Identify local specific features such as history, culture etc. Community is willing to participate in these activities as they strongly believe that they are the people who actually know about these specific features	Obtain the involvement of the community and provide them with actual participatory opportunities.	Wider community engagement
Integration of community ideas in the final urban analysis	The community engagement should not be undertaken for the sake of doing it, there should be a clear purpose and intention to do it.	Professional actors

Figure 4-28- Establishment of components under KF community engagement for preparation stage

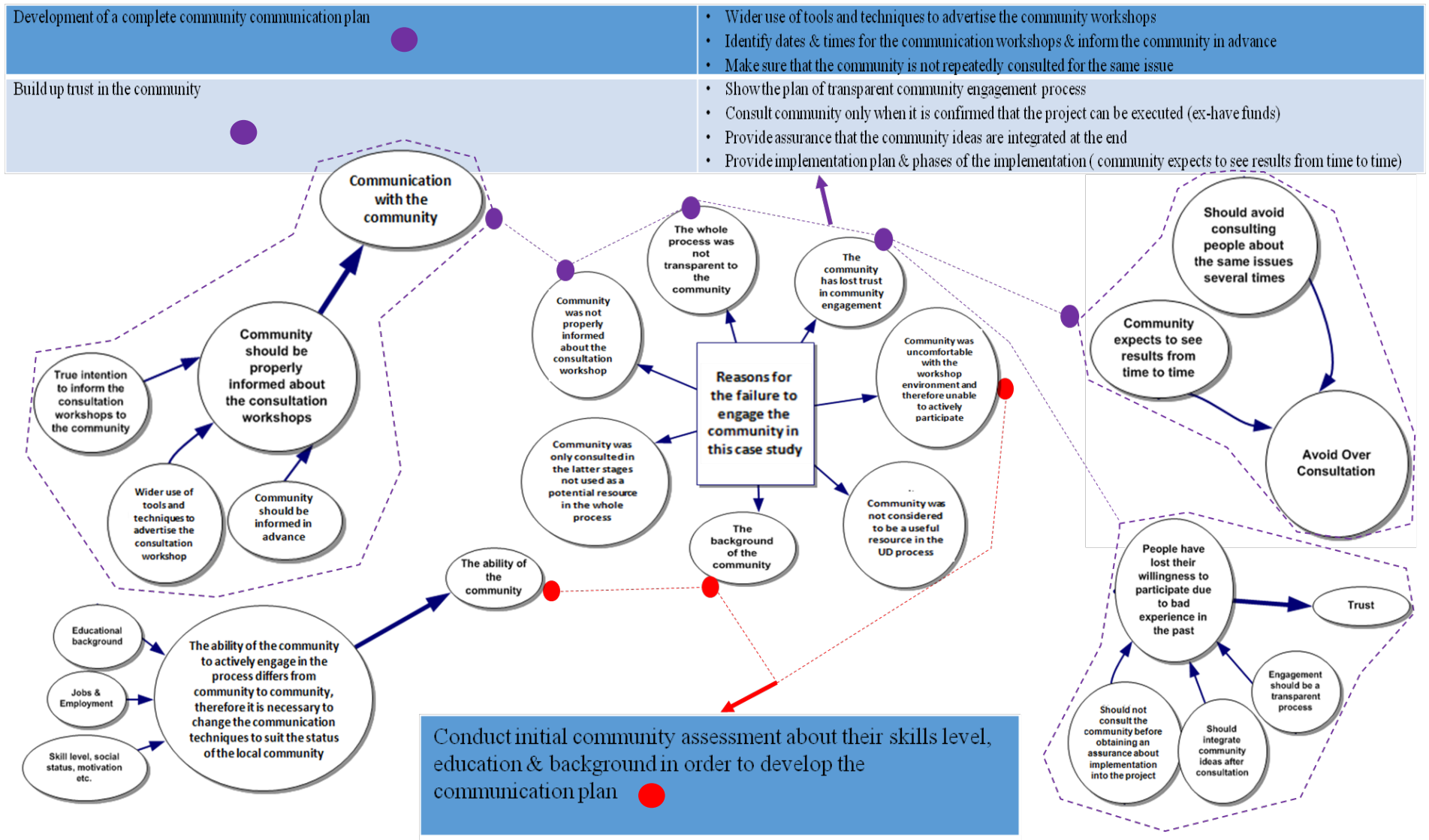
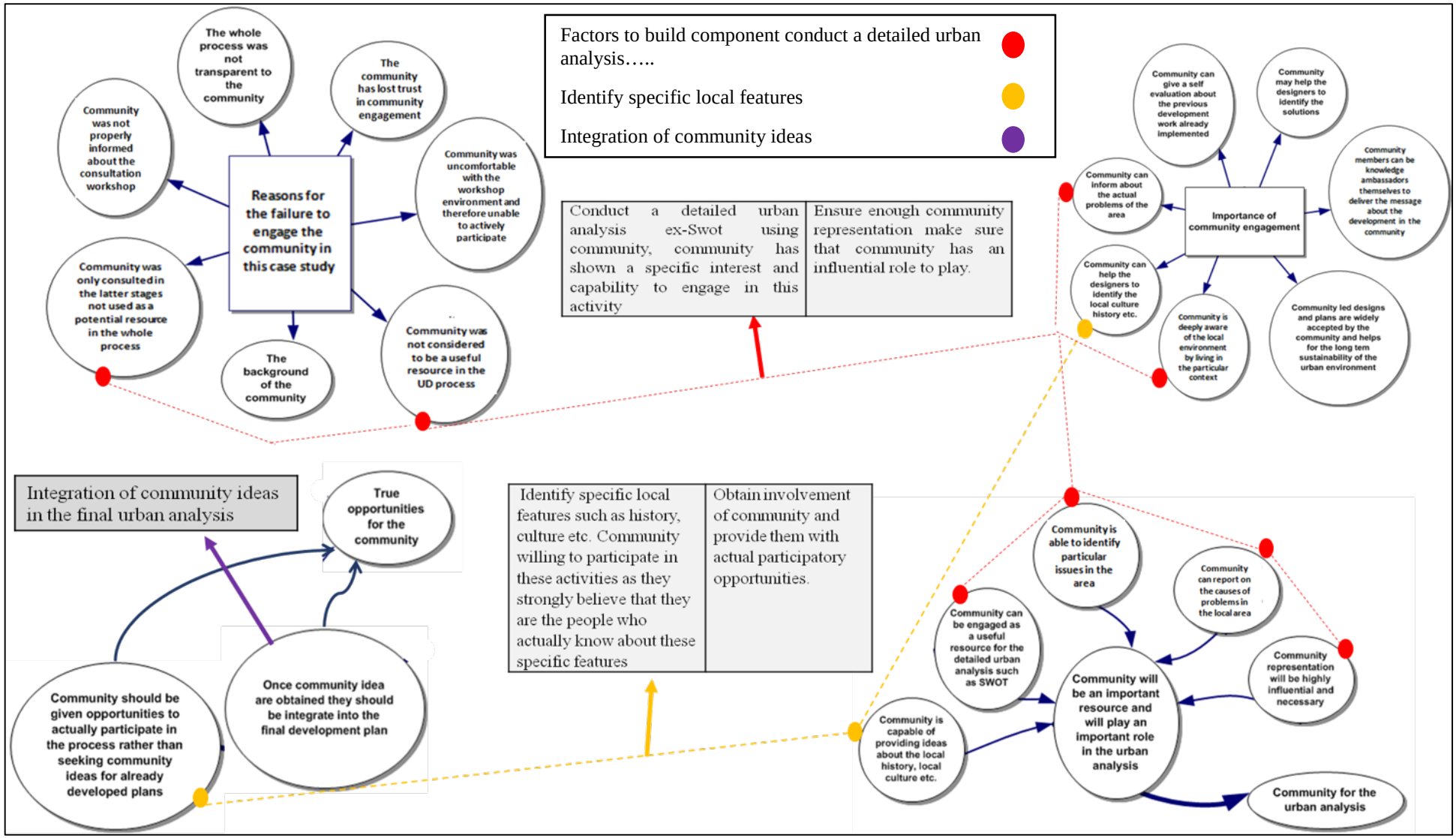


Figure 4-29- Establishment of components under the KF community engagement for the urban analysis stage



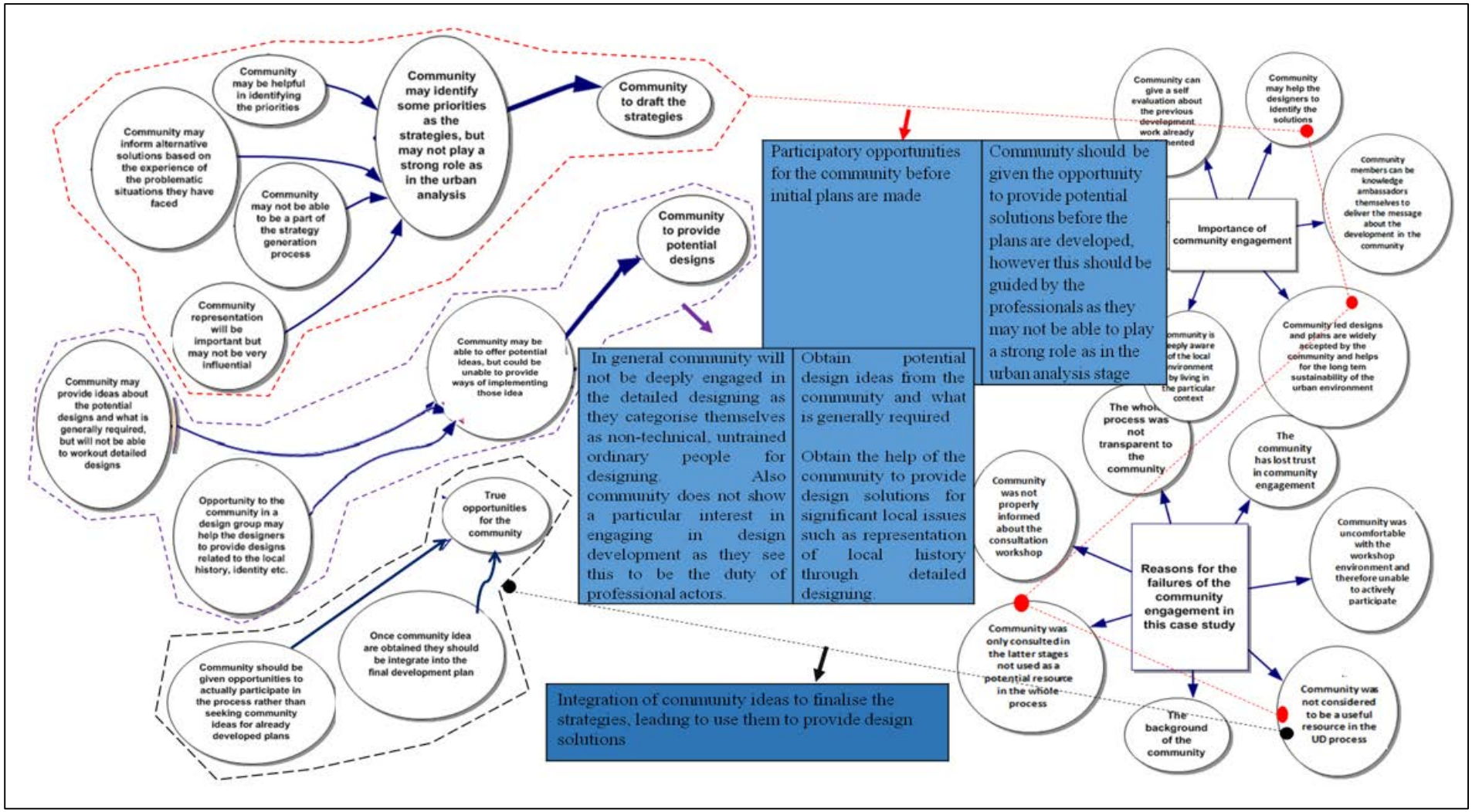
After establishing the components in the urban analysis stage the components were established for the strategy generation stage and also for the design development stage. Under the KF 'importance of community engagement' (figure 4.15) two sub-factors were discovered which describe community engagement in strategy generation. The sub-factors are 'community may help the designers to identify solutions' and 'community led designs and plans are widely accepted by the community'. These two sub-factors were linked with two sub-factors which described the reasons for the failure of community engagement (figure 4.14) which are 'community was not considered as a useful resource' and 'community were only considered at the latter stage'. Thereafter, the combination of this set of sub-factors linked with the sub-node section on 'community to draft the strategies' (figure 4.7) established the component for community engagement at the strategy generation stage informing that participatory opportunities should be provided to the community before the initial plans are made. Thereafter, the sub-node section on 'community to provide potential designs' (figure 4. 8) established the component for the role of the community in the design development stage. The sub-node section of 'true opportunities for the community' (figure 4.9) established the component 'integration of community ideas to finalise the strategies'. Figure 4.30 describes how the three components discussed above were established. All the components established for the strategy generation and design development stages under this KF are presented in the table below:

Table 4.8- Components established for the strategy generation and design development stage under this KF community engagement

Component	**Action**	**Through/ Responsible authority**
Participatory opportunities for the community before initial plans are made	Community should get the opportunity to provide potential solutions before the plans are developed, however this should be guided by the professionals as they may not play a strong role as in the urban analysis stage.	Wider community & core project team

In general community will not be engaged deeply in the design development as they categorise themselves as non-technical, untrained ordinary people. Also the community does not show a particular interest in engaging in the design development stage as they see it to be the duty of the professional actors.	Obtain potential design ideas from the community and what is generally required Obtain the help of the community to provide design solutions for locally significant things such as .representation of local history through design development.	Mainly professional actors (core project team) but should get the design ideas from the community
Integration of community ideas to finalise the strategies, leading to using them to provide design solutions	The community engagement should not be done just for the sake of it, there should be a clear purpose and intention for community engagement.	Core project team

Figure 4-30- Establishment of components under the KF community engagement for strategy generation & design development stage



4.5.3- COMPONENTS ESTABLISHED BY THE KF COLLABORATION WITH STAKEHOLDERS

The KF 'collaboration with stakeholders' informed the need for representation by local politicians in the support group in order to identify the political concerns in the early stages (figure 4.18). Figure 4.17 showed that identification of political concerns leads to the avoidance of possible delays in project approval and implementation. Furthermore, it was found that local politicians could help to attract the community to the UD process (figure 4.18). In addition it was identified that there was a need to seek ideas and views from a wider audience rather than relying on work done by one particular agency (figure 4.17). Accordingly, the sub factors derived from the KF established the component for the creation of a support group to work with the project team. Therefore, for the preparation stage three components have been established as follows:

Table 4.9- Components established under preparation stage for KF collaboration with stakeholders

Component	**Action**	**Through/ Responsible authority**
Clear future delays to approval & implementation	Inform and aware local politicians about the potential urban development to be taken	Professionals to local politicians
Actions to attract the community to the process	Obtain the help of local politicians to promote community involvement	Local politicians
Establish a stakeholder group as part of the project team	Identify the stakeholders to be included	Core project team including local politicians, developers and the academic community

Furthermore, as earlier described, it was discovered that it was importance to obtain the ideas of a wider audience which includes local politicians, developers; the local community and as also the academic community (figure 4.17). This idea initiated the creation of the component 'understand the urban context from different perspectives'. Also as the KF revealed, collaboration can be maintained as a support group (figure 4.18) throughout the process and the same component has been repeatedly identified for the detailed urban analysis stage. In addition the need for reassessment work before finalising the stage can be achieved by obtaining the help of stakeholders. The following table (4.10) describes the components established under 'problem identification & detailed urban analysis stages':

Table 4.10- Components established under problem identification & detail urban analysis stage for KF collaboration with stakeholders

Component	**Action**	**Through/ Responsible authority**
Understand the urban context from different perspectives	Consult different stakeholders in order to view the urban issues from different perspectives	Local politicians, developers, academic community
Re-assessment of work before finalising the analysis	Obtain comments from the stakeholders before finalising the urban analysis	Local politicians, developers, academic community

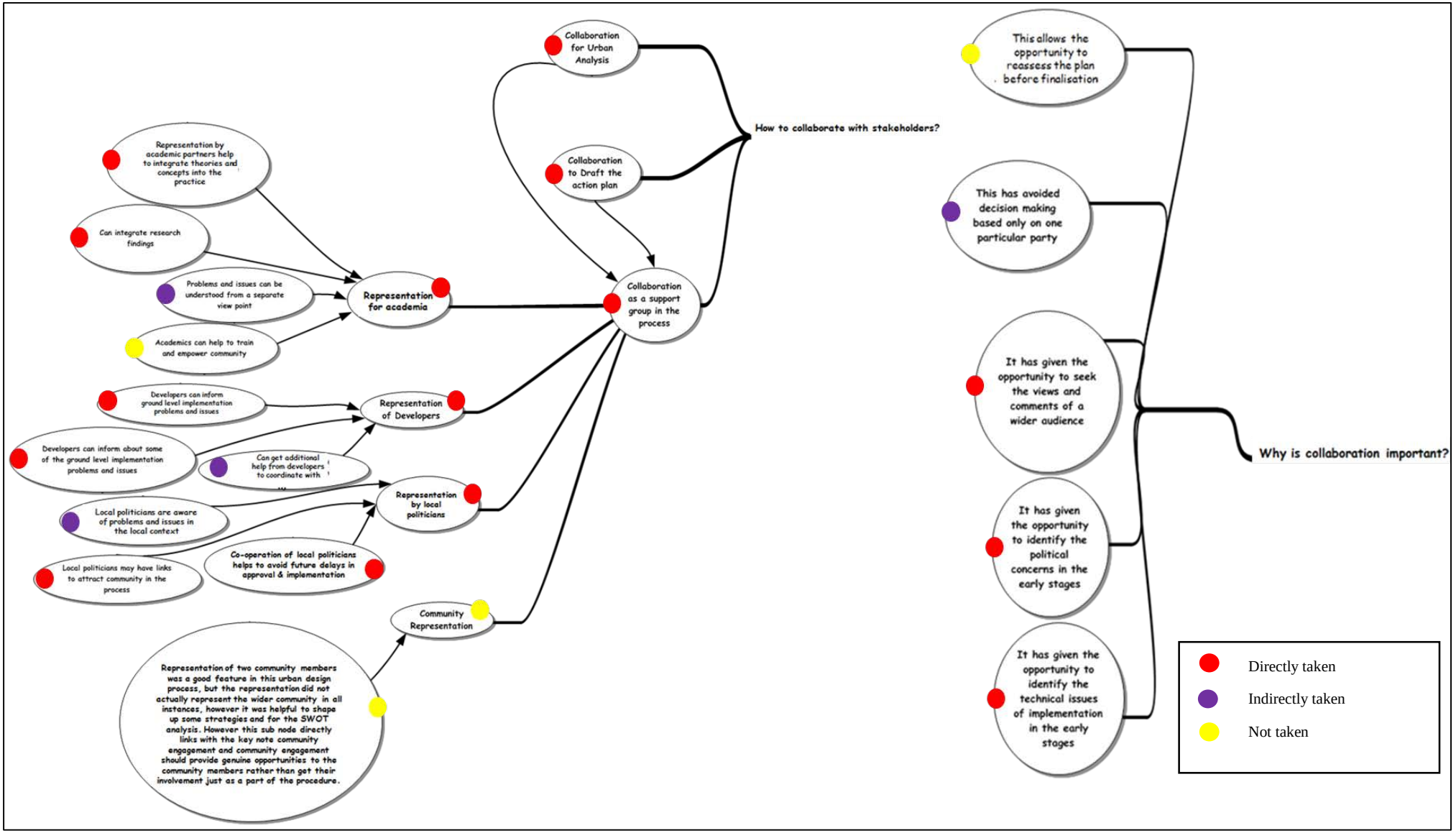
Consequently it was revealed that the collaborative support group is required to represent the developers as they can provide information regarding potential ground level implementation issues (figures 4.17 & 4.18) as well as providing the technical help to shape up identified strategies. In addition, it was noted that the support group should have a representative from the academic community in order to integrate theory and concepts into practice (figure 4.17 and figure 4.18). Based on above two sub-factors the following two components were established for the strategy generation stage of the UD process.

Table 4.11-Components established under strategy generation stage for KF collaboration with stakeholders

Component	**Action**	**Through/ Responsible authority**
Integrate theory & concepts into practice including research findings	Consult academic community in order to understand new theories and concepts	Academic community
Obtaining technical inputs and ground level implementation problems	Consult project implementers in order to understand technical and ground level issues to implement identified strategies	Developers

For the detailed design stage no particular component was idneitfied from this KF, however, as it had been idenitfied that the stakeholders can be a part of the project team througout the UD process, their involvement can also be represented at the detailed design stage. However, some 'whys' and 'hows' in the mind map (figure 4.17 and figure 4.18) have not been used to build components in the UD process and some had been indirectly used to build components. Accoridngly, the sub-factor 'community representation' in the supprt group was not used as a component in this instance as there was a particular KF derived for community enaggement and their role. Furthermore, the sub-factor 'academics can help to train people' was not used as a component because it is not supported under any other section in the mind map. Some sub sections indirectly supported the establishment of components. The sub-factor 'problems & issues can be understood from a separate view point' which is via engagement with the academic community, 'Local politicians may aware about local issues' via engagement with local politcians and 'getting additional help from developers' via engagement with developers are all indirectly supported the creation of the above identified components. The following figure (4.31) illustrates the sub-factors that directly and indirectly established the components and the sub-factors which did not support the establishment of components. The red coloured circles highlight the sub-factors which directly established components while the purple coloured circles represent the indirect sub-factors and the yellow coloured circles represent the sub factors which have not supported the establishment of components.

Figure 4-31-Establishment of components under each sub factor in KF collaboration with stakeholders



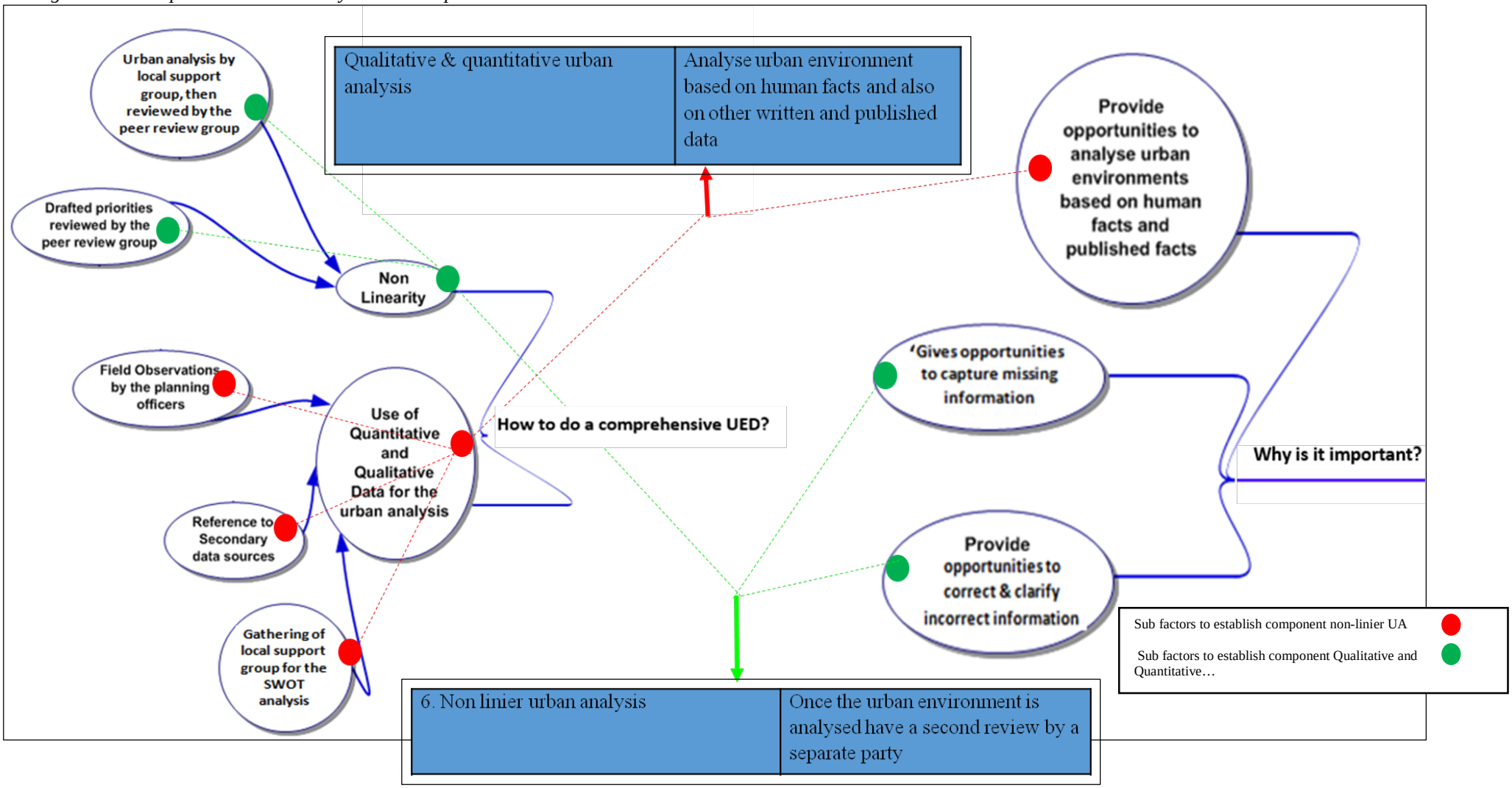
4.5.4- COMPONENTS ESTABLISHED BY THE KF COMPREHENSIVE URBAN ENVIRONMENTAL DIAGNOSIS

This KF (figure 4.20) has led to the establishment of components only for the urban analysis stage, however, the components established from this KF are really important to a successful urban analysis. Figure 4.33 describes how the components were established from this KF and the table below illustrates the established components under this KF:

Table 4.12-Coponents established under KF Comprehensive urban environmental diagnosis

Component	**Action**	**Through/ Responsible authority**
Qualitative & quantitative urban analysis	Analyse urban environment based on human factors as well as on other written and published data	Core project team
Non linier urban analysis	Once the urban environment has been analysed have a second review should be undertaken by a separate party	Core project team engaging with other parties

Figure 4-32 Components established by the KF comprehensive urban environmental



4.5.5- COMPONENTS ESTABLISHED BY KF CEASE EARLY DECISIONS

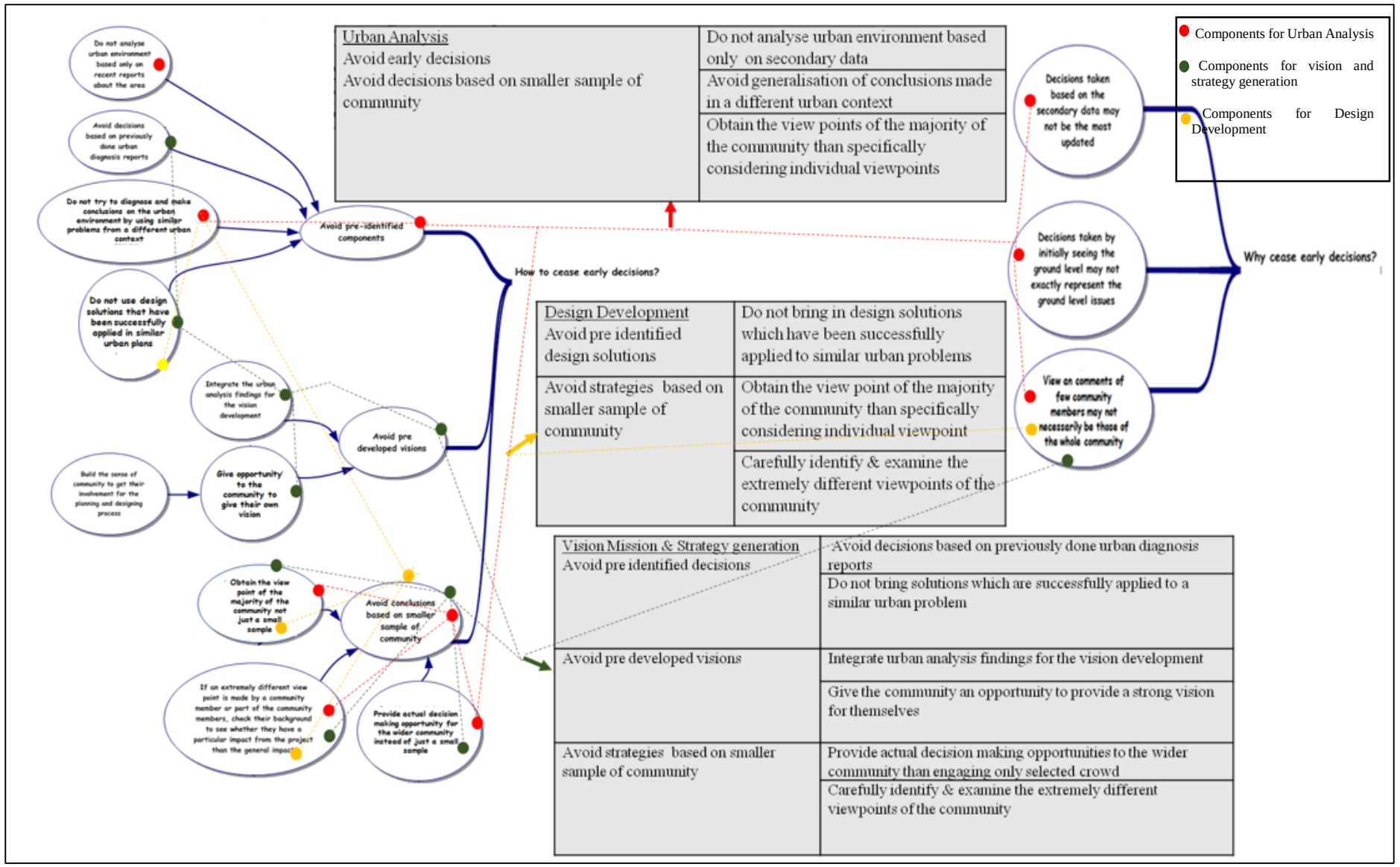
Under the KF 'cease early decisions' three components were established for the UD process framework for the stages of urban analysis, strategy generation and design development. In the mind map developed for this KF (figure 4.22) the section on 'how to cease early decisions' is comprised of three sub-sections namely; 'avoid pre-identified components', 'avoid pre-developed visions' and 'avoid conclusions based on smaller community samples '. Each sub-section shows what actions need to be done to achieve the factors in the sub- sections. A combination of the sub-factors, along with the section 'why cease early decisions', on the mind map, (figure 4.22) has established the components for the UD process for this KF. Figure 4.33 describes the establishment of the components under this KF. The table below presents all the components established under this KF:

Table 4.13-Components established under KF cease early decisions

Component	**Action**	**Through/ Responsible authority**
Urban Analysis Avoid early decisions Avoid conclusions based on smaller sample of community	Do not analyse urban environment based only on secondary data	Core Project team
	Avoid generalisation of conclusions made in a different urban context	
	Obtain the view points of the majority of the community instead of specifically considering individual viewpoints	
Vision Mission & Strategy generation Avoid pre identified decisions	Avoid decisions based on previous urban diagnosis reports	Core Project team
	Do not use solutions that have been successfully applied to a similar urban problem	

Avoid pre developed visions	Integrate urban analysis findings for the vision development	Core project team
	Provide the opportunity for the community to set up a strong vision for themselves	Wider community engagement
Avoid strategies based on small samples from the community	Provide actual decision making opportunities to the wider community rather than engaging only a select sample	Wider community engagement
	Carefully identify & examine the extreme viewpoints of the wider community	Core project team
<u>Design Development</u> Avoid pre identified design solutions	Do not use design solutions that have been successfully applied to a similar urban problem	Core project team
Avoid strategies based on small samples from the community	Obtain the view points of the majority of the community than specifically considering individual viewpoints	Core project team
	Carefully identify & examine the extreme viewpoints of the wider community	

Figure 4-33- Establishment of components under KF Cease early decisions



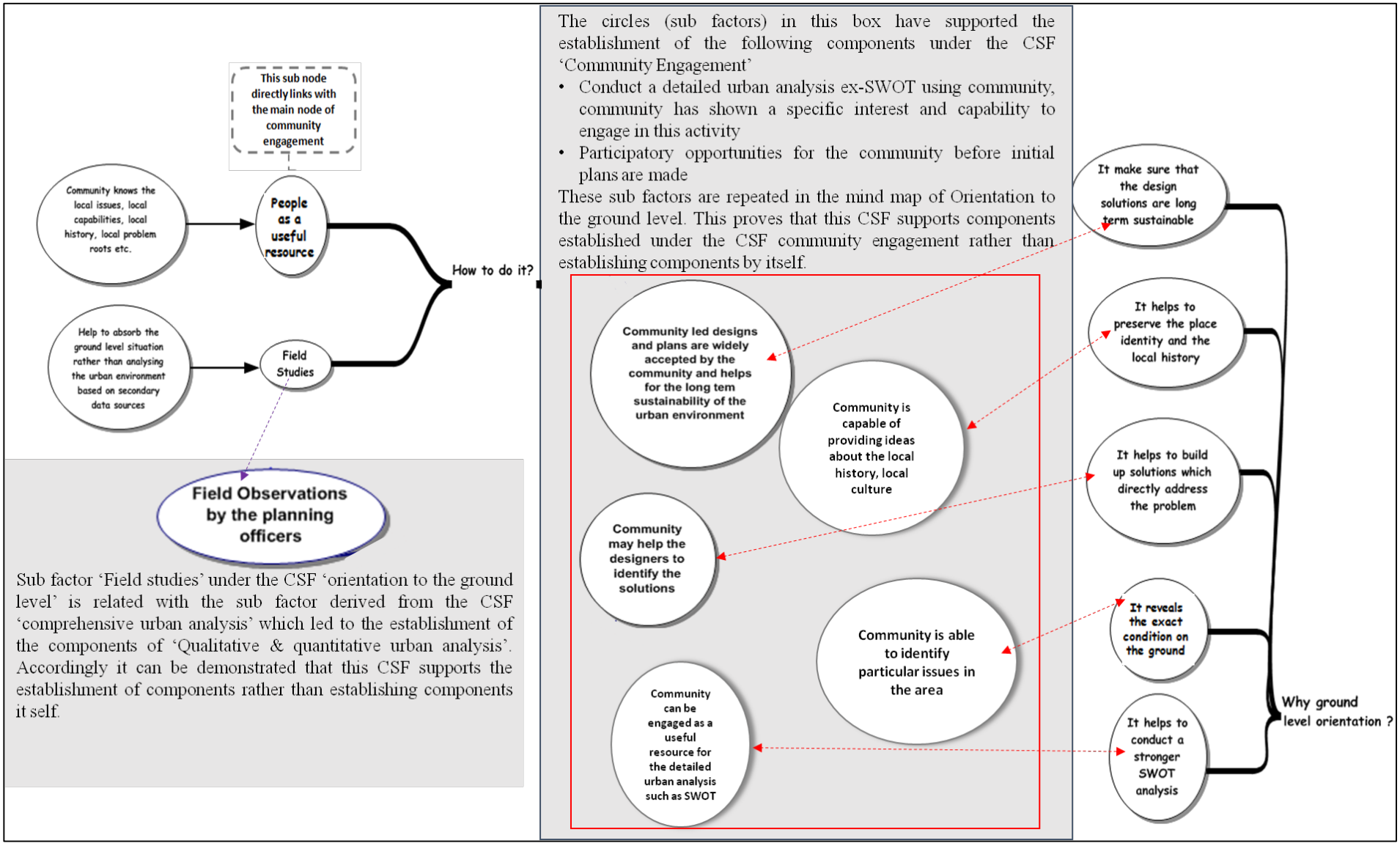
4.5.6- COMPONENTS ESTABLISHED BY KF GROUND ORIENTATION

This KF, by itself, did not establish any components for the UD process, but this KF directly supported and re-established the components created under the KF community engagement and comprehensive urban environmental diagnosis. In the KF for ground orientation there are two ways to describe ground level orientation (figure 4.24), one is people as a useful resource factor and the other is field studies. ‘People as a useful resource factor’ supports the re-establishment of the components established under community engagement while ‘field studies’ supports re-establishment of components established under the comprehensive urban environmental diagnosis. Figure 4.34 further describes how the re-establishment has taken place:

4.5.7- COMPONENTS ESTABLISHED BY KF KNOWLEDGE SHARING

As described in section 4.4.7 KF knowledge sharing is a specific feature derived in this case study as this project was a part of a chain of projects implemented within the European Union. Accordingly, under this KF the project had the opportunity to share their knowledge and experience among the other project partners which became extremely successful (figure 4.26). But the researcher did not extract those features to establish components for the conceptual UD process framework as the unique nature of knowledge sharing cannot be generalised to all the UD projects.

Figure 4-34- Reestablishment of previously identified components under KF Orientation to the ground



4.5.8- INITIAL UD PROCESS FRAMEWORK ESTABLISHED FROM THE CASE THE CASE STUDY 01

Sections 4.5.1 to 4.5.7 provides a detailed discussion regarding the establishment of components derived from case study 01. This section has put all the components together in the correct order of the UD process. Figures 4.35 to 4.39 presents the conceptual UD process framework developed from the case study 01.

Figure 4-35-Preparation stage, initial framework from case 01

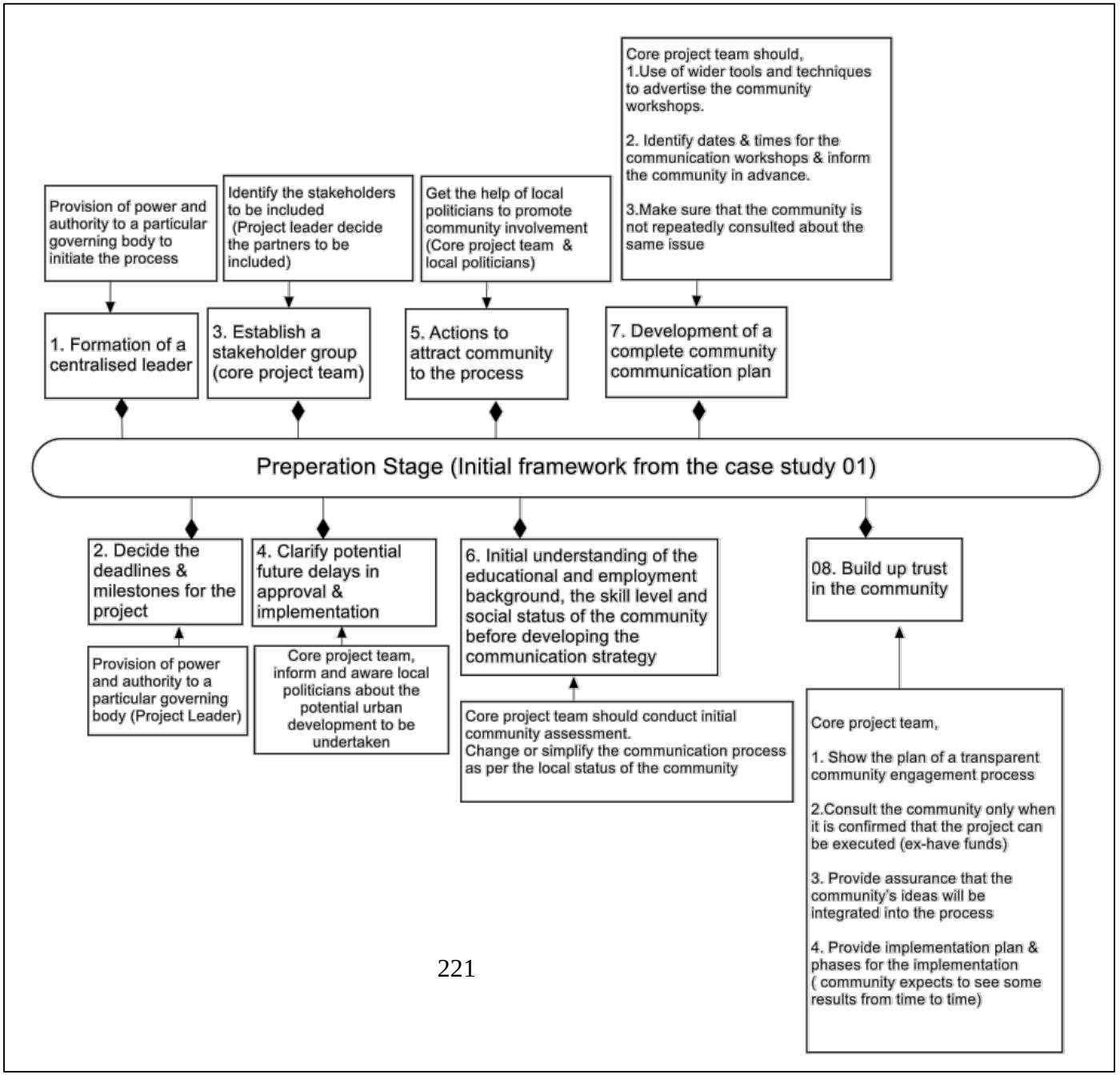


Figure 4-36-Problem identification stage, initial framework case 01

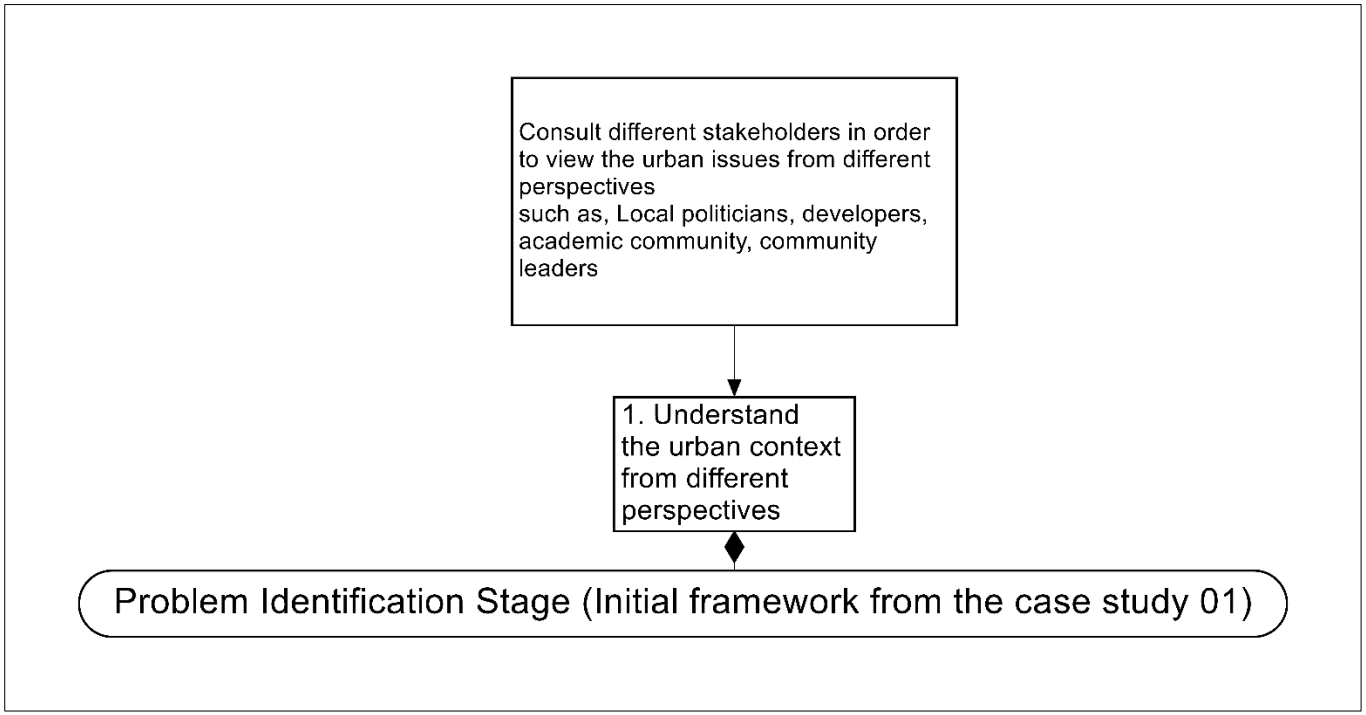


Figure 4-37- Urban Analysis, initial framework case 01

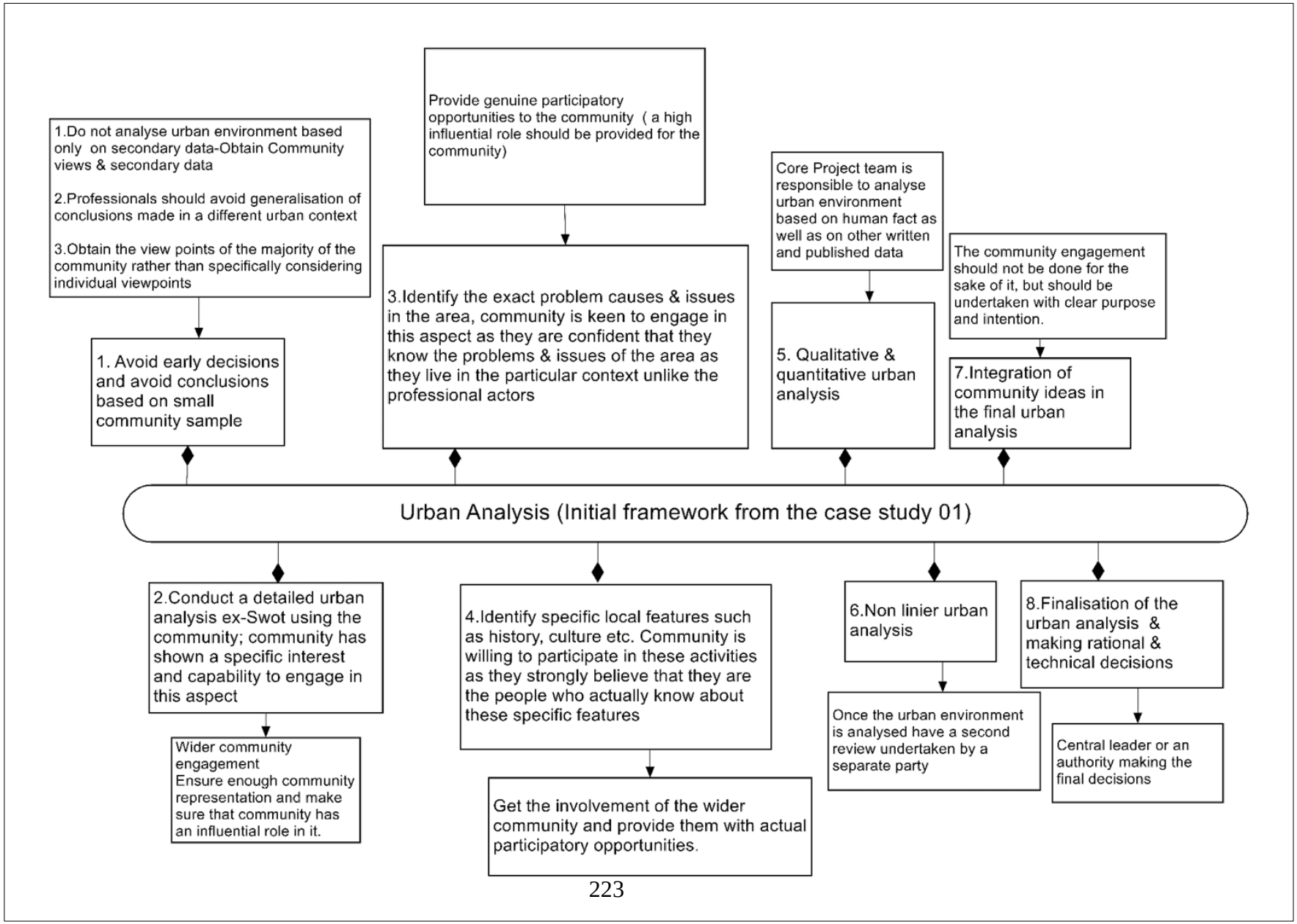


Figure 4-38-Vision and strategy generation, initial framework case 01

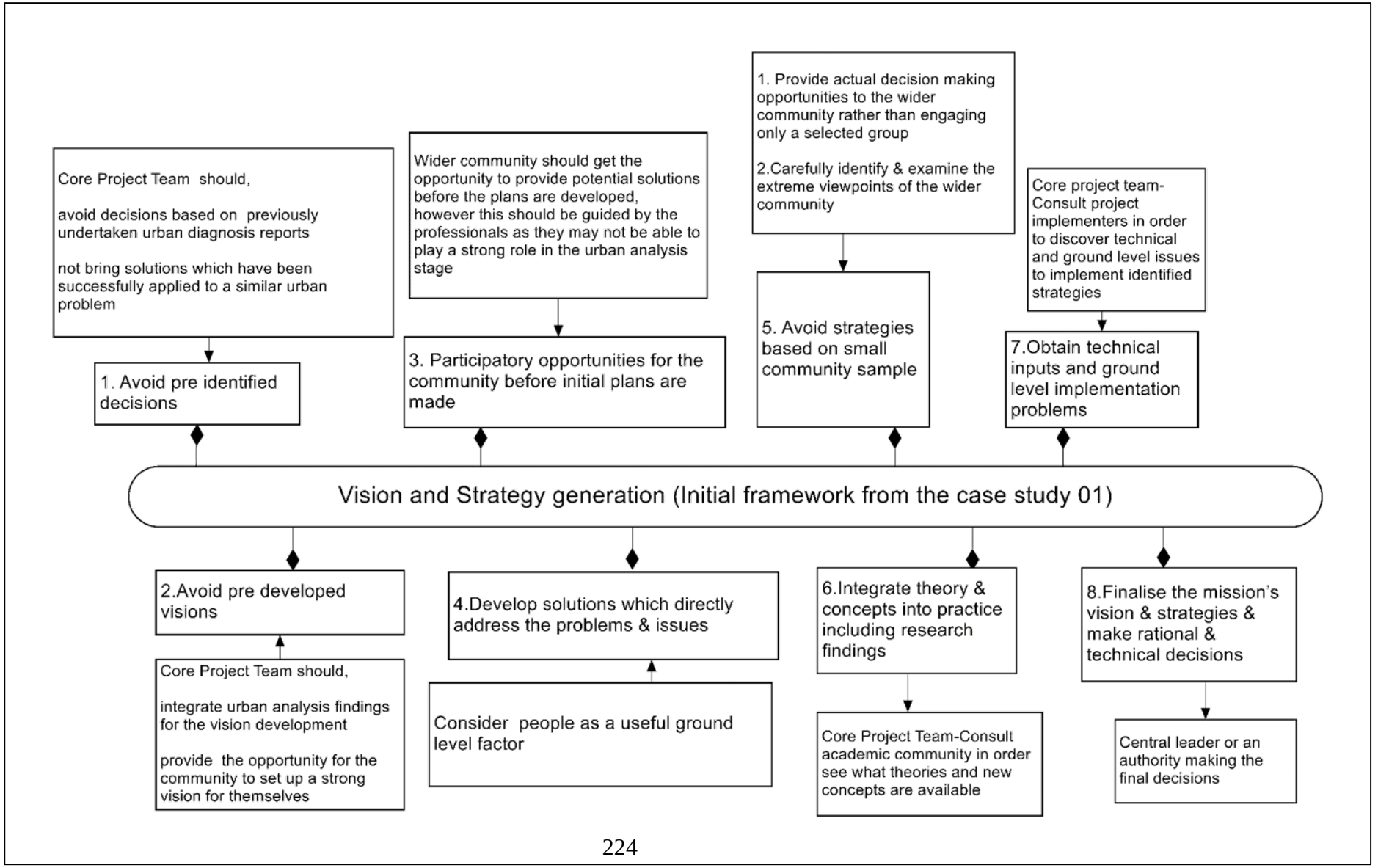
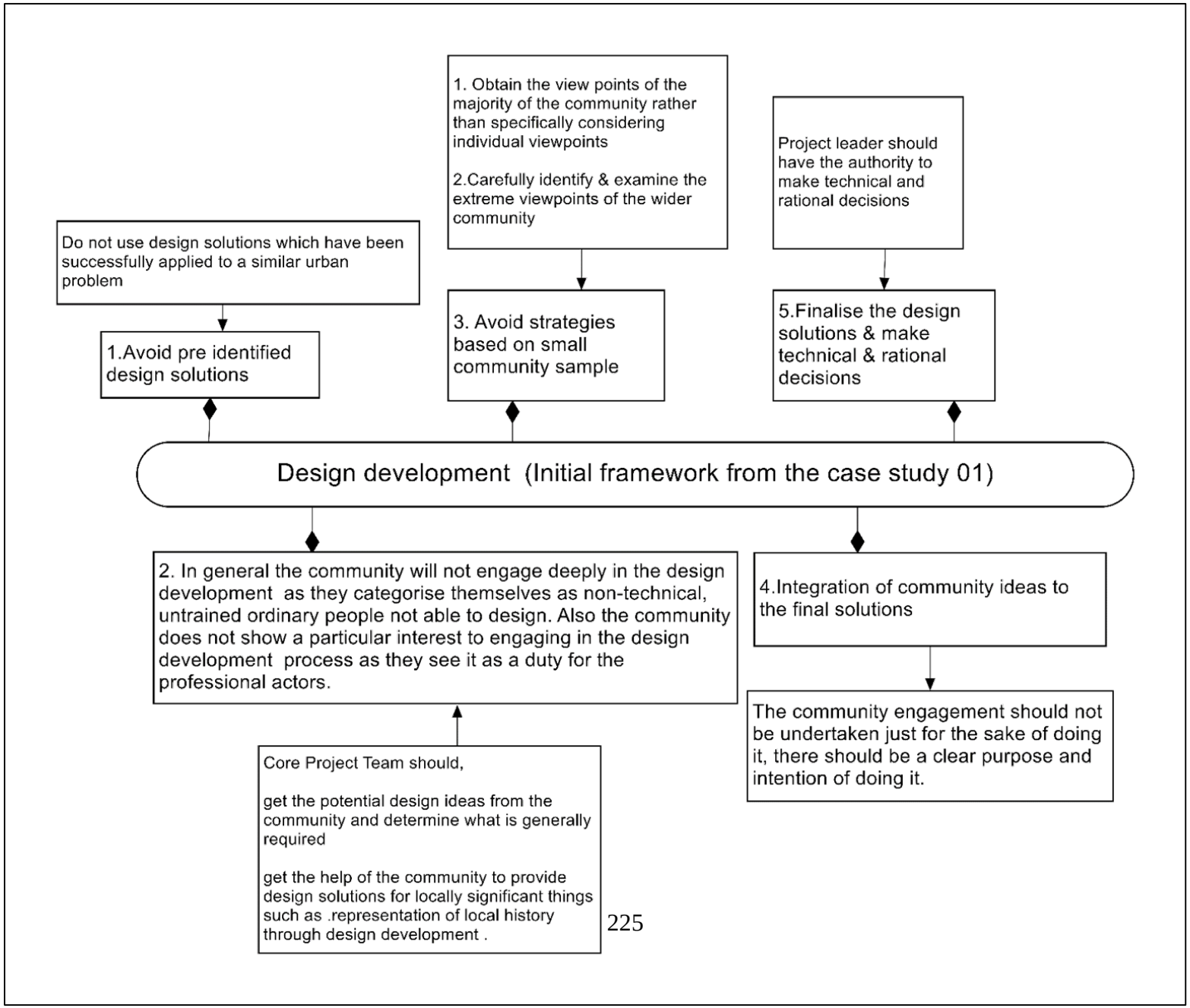


Figure 4-39- Design development, initial framework case 01



4.6- SUMMARY OF THE CHAPTER

This chapter has analysed and presented the findings for case study 01. The researcher initiated this case study to evaluate the standard UD process but found however, that there are modified features in this UD process that are not typical in a top down urban design process. The analysis of the data led to the creation of seven key factors needed to undertake a sustainable UD process. Some of the KFs are outcomes from the positive features discovered in this UD process and some KFs are derived by analysing the negative features discovered in the UD process. After establishing the KFs the researcher further analysed the contents developed under each KF to build up the components of the conceptual UD process framework. Once the components had been established they were placed within the standard stages of an urban design project process to establish the final set of components derived from this case study for the new UD process framework. In the next chapter the researcher will analyse case study 02 and will build components evolving from case study 02 and, thereafter, a cross case analysis will be conducted before the development of a conceptual new urban design process framework.

Chapter 5 RESEARCH FINDINGS- CASE STUDY 2

5.1- INTRODUCTION

The previous chapter built an initial UD process framework based on the findings of case study 01 this chapter is seeking to build another initial UD process framework based on the findings from case study 02. Accordingly, the structure of the chapter is presented below:

- Firstly, the background details of the urban design project are discussed on an investigation into the urban design process
- Secondly, the main analysis is presented which leads to the identification of the key factors emerging from the case study under investigation
- Thirdly, the emergent key factors, from case study 2, are further analysed in order to develop the components needed for the initial conceptual framework.

5.2- BACKGROUND TO THE CASE STUDY

In the previous case study the researcher developed components for the initial UD process framework based on a project which adopted the standard top down UD process. In this case study the researcher has applied the features of regenerative design in the UD process. By employing the features of regenerative design in the UD process for this case study the researcher expected to discover the positive and negative features of regenerative design and to evaluate how those features can be adapted into a new process framework for UD. Accordingly, the researcher brought together the KFs that emerged from this case study and then the KFs were further analysed to develop the components for the new initial conceptual UD process derived from this case study.

5.2.1-URBAN DESIGN PROJECT IN CASE STUDY 02

5.2.1.1- About the UD project

In the same way as the previous case study the UD project examined in this case study is also based in North West England. Most of the features from both case studies are similar and this UD project was also conducted by a city council in North West England and particularly focused on an area of social housing where the scale of the urban design project lay at neighbourhood level. The project area has undergone a number of regeneration processes since 1997; however, there is still a sizeable amount of work left to be done on a more neighbourhood scale to achieve some objectives specifically on place making.

The area is located approximately 13 miles east of Manchester city centre. The setting for this area is an impressive one being set in a green valley surrounded by hills and breath-taking views of the nearby Peak District. The neighbourhood area is mainly comprised of a housing estate built between 1962 and 1972. By the 1990s the estate had deteriorated and in 2003 a key master plan for the area was implemented and the area underwent regeneration work. A number of the strategies introduced in the 2003 master plan were implemented whilst others were never implemented. However, as mentioned earlier, many areas still require regeneration in order to revitalise the area, build a sense of the community and improve the image of the area. With this in mind this particular project was introduced to the estate as a neighbourhood UD project by the relevant city council in order to increase the public image while also achieving other criterion necessary to create a sustainable neighbourhood.

5.2.1.2- The UD process for this project

The local authority related to this particular UD project employed a standard top down process on this UD project and the researcher was able to collaborate with council project team. Accordingly the researcher conducted a separate UD process for the same UD project in order to evaluate how the features of regenerative design could contribute to creating a new UD process framework for sustainable urban design. Accordingly, the researcher received the full consent of the local authority to access all parties and documents related to the project and to organise and conduct group discussions with stakeholders of the project.

The researcher employed the features of regenerative design in the UD process for this project as an individual not as a project team as would normally happen in a UD process. Therefore, some sub-components and sub-features may have not been represented in the UD process employed by the researcher. However, the researcher made the maximum effort to maintain a similar environment to that of a UD project process conducted by a team of professionals. The advantage was that the council's project process ran parallel to that undertaken by the researcher and the stakeholders engaged in the researcher's UD process were not conscious of being involved in two separate UD processes; that of the UD process conducted by the city council and that conducted by the researcher.

As the researcher evaluated the features of regenerative design in this case study it is important to recall the key features of regenerative design in this section (the concept of regenerative design was discussed in detail in section 2.6) Accordingly, the three specific features of the regenerative design process are:

- Integral Assessment
- Story of the Place
- Stakeholder engagement.

The researcher employed these specific features of the regenerative design process in UD project process from the preparation stage to the design development stage. In order to obtain data at each of the stage (stages of the UD process) by employing regenerative design, the researcher used different data collection techniques which are described in sections 5.2.2. to 5.2.5. By employing the features of the regenerative design process in the UD project process, the researcher discovered the KFs which could, potentially, be used to create the components for the new UD process framework. The figure below describes the nature of the UD process and the integrated features of regenerative design employed by the researcher.

Figure 5-1- Nature of the UD process employed in the case study 02

Features of regenerative design employed in the UD process for case study 2	
Features of Regenerative Design	**Stages covered in the UD process & parties engaged**
Phase 1 Integral Assessment: Understanding Place • Collect data about the place, history reports, economic reports, previous reports about the place etc., • Collect data and information from stakeholders, ex-community leaders, commuters etc. *A strong understanding of the place is expected, linking the past and present, also this identifies the potential & drawbacks of the area*	Represents the preparation & problem identification stages in the UD process. The urban environment is understood by use of secondary data sources, ideas from professionals, ideas from community members such as community leaders etc.
Phase 2 The Story of Place: Make it understandable, comprehensible and transferrable • Develop a story of the place based on the information gathered in the first stage • Produce it at stakeholder workshops *The stakeholders are provided with a full, detailed history of the place; anyone who is unfamiliar with the place, such as, development team members has an opportunity to learn more. Stakeholders also have the opportunity to check for missing data the story of the place.*	Represents the urban analysis stage The story of the place is delivered in order to strengthen the findings of the previous stage. The wider community is consulted at this stage. The community has constructed a story of the place inviting comment or alteration.
Phase 3 Stakeholder Engagement: Inspiring the Community *An open community consultation workshop, which provides a platform for introducing the story of the place, developing strategies and solving the problems and issues identified.*	Represents the vision mission & strategy generation & design development stage The story of the place is integrated here to build up the strategies to the place, wider community is consulted.

5.2.2- FOCUS GROUP DISCUSSIONS

Focus Group Discussion was one of the key data collection methods used in this case study. The focus group discussion was used in the first stage of data collection and is referred to as 'the integral assessment' in the regenerative design process (Appendix B-sample focus group discussion script). According to the characteristics of integral assessment it is necessary to conduct an investigation into the geological, hydrological, biotic and human cultural systems to obtain an understanding of the urban environment. In uncovering the biotic and cultural systems community leaders and community based organisations are considered to be a useful resource. Accordingly, the researcher conducted three focus group discussions with officers from the community forum for the area. There were 12 officers in the community forum and to ensure the effectiveness of the focus group discussion the researcher divided members of the core team into three groups and conducted three focus group discussions. The table below describes the three focus group discussions conducted by the researcher.

Table 5.1- List of focus group discussions conducted

Focus Group Name	**Targeted Members**	**Aim of the Discussion**	**No of members in the group**
Community forum 1(CF 1)	Officers from the community forum	To understand the urban entity	4
Community forum 2 (CF 2)	Officers from the community forum	To understand the urban entity	4
Community forum 3 (CF 3)	Officers from the community forum	To understand the urban entity	4

5.2.3- DOCUMENT REVIEW

The researcher conducted a document review as a part of the integral assessment of the regenerative design process. Accordingly, the researcher accessed a wide range of documents regarding the urban environment some of which were about previous regeneration projects implemented in the area and some about the socio-economic profile of the area. The following table describes the set of documents the researcher reviewed for the analysis:

Table 5.2-List of documents reviewed

Document Number	**Document Name**
DR1	Summary document prepared by the researcher based on all the other reports
DR2	Communications strategy Ref. 9th January 2012
DR3	2 Page summary of the market analysis for the LDSG Mtg held on 15th march 2012
DR4	Construction charter
DR5	Construction Phasing Plan
DR6	Consultation and communication
DR7	Demolition of the Arcade, Library and Community Centre
DR8	Development Delivery Strategy, Nov 2005
DR9	Development Opportunity Sites (Draft – 03.08. 11)
DR10	Executive Summary Report - Aug 2005
DR11	Public Realm Design Brief 10-05-26

DR12	Public realm improvements
DR13	Questions for Developers and Investors (13.08.11)
DR14	Residential developments - phase 2a
DR15	Residential developments - phase 2a (2)
DR16	Youth Group consultation
DR17	Landscape proposals
DR18	Infrastructure Public Realm
DR19	Land Development Steering Group

5.2.4- INTERVIEWS

Interviews were the most important data collection method used in this case study and the researcher used interviews at three stages of the data collection process. Firstly, the researcher conducted interviews at the integral assessment stage of data collection in the regenerative design process and, thereafter, interviews were conducted at two community engagement workshops organised by the researcher. The table below describes the number of interviews conducted and the purpose for each interview within the regenerative design process.

Table 5.3-List of interviews conducted

Interview Number	**Type of Interviewee**	**Aim of the Interview**
IV1	Project officer from previous urban development work	Data collection for the integral assessment
IV2	President of the Community Forum	Data collection for the integral assessment
CIV1	Community Member	Community workshop to create story of the place

CIV2	Community Member	Community workshop to create story of the place
CIV3	Community Member	Community workshop to create story of the place
CIV4	Community Member	Community workshop to create story of the place
CIV5	Community Member	Community workshop create story of the place
CIV6	Community Member	Community workshop to create story of the place
CIV7	Community Member	Community workshop to create story of the place
CIV8	Community Member	Community workshop to create story of the place
CIV9	Community Member	Community workshop to create story of the place
CIV10	Community Member	Community workshop to create story of the place
CIV11	Community Member	Community workshop for stakeholder engagement
CIV12	Community Member	Community workshop for stakeholder engagement
CIV13	Community Member	Community workshop for stakeholder engagement
CIV14	Community Member	Community workshop for stakeholder engagement

CIV15	Community Member	Community workshop for stakeholder engagement
CIV16	Community Member	Community workshop for stakeholder engagement
CIV17	Community Member	Community workshop for stakeholder engagement
CIV18	Community Member	Community workshop for stakeholder engagement
CIV19	Community Member	Community workshop for stakeholder engagement
CIV20	Community Member	Community workshop for stakeholder engagement

5.2.5- ONLINE DISCUSSION FORUM

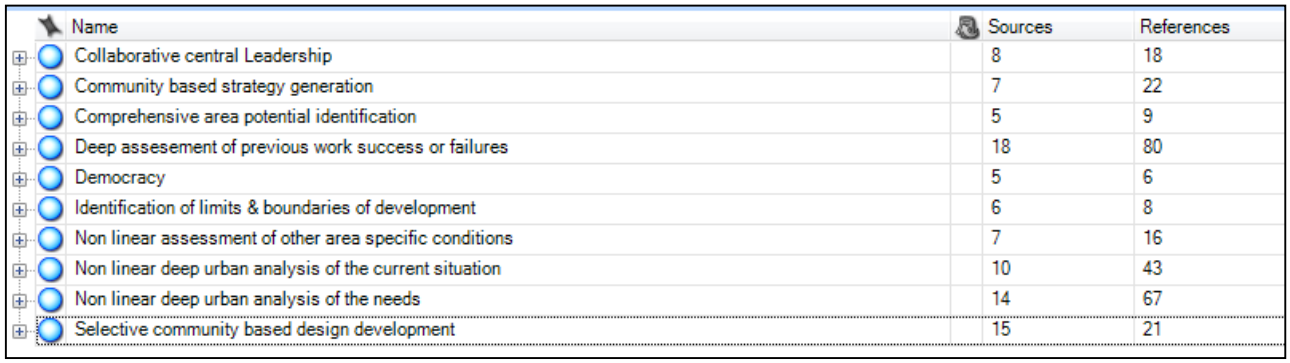
The researcher hosted an online discussion forum in order to achieve wider community engagement in the process. The second and third data collection points (story of the place and stakeholder engagement) were expected to be widened by the use of an online forum; however, the online discussion forum was unsuccessful as the community did not want to engage in an online discussion forum.

5.4- EMERGING KEY FACTORSIN CASE STUDY 2

As mentioned earlier, in this case study the researcher employed the features of regenerative design in the UD process conducted by the researcher. By employing the features of regenerative design the researcher intended to inductively obtain the KFs which would lead to the construction of components for the UD process framework. The inductively obtained KFs have informed the viability of the features of regenerative design and how those viable features should be merged to establish components for the UD process framework. Furthermore, KFs emerged that have shown the non-viable features of regenerative design which should not be considered for a potential UD process framework. Figure 5.2 illustrates the KFs derived from this case study in an NVIVO node structure. Sections 5.4.1 to 5.4.8

describe how each and every KF was established and how and why each KF should be integrated to create the components for the UD process framework.

Figure 5-2- List of KFs' that emerged from case study 02

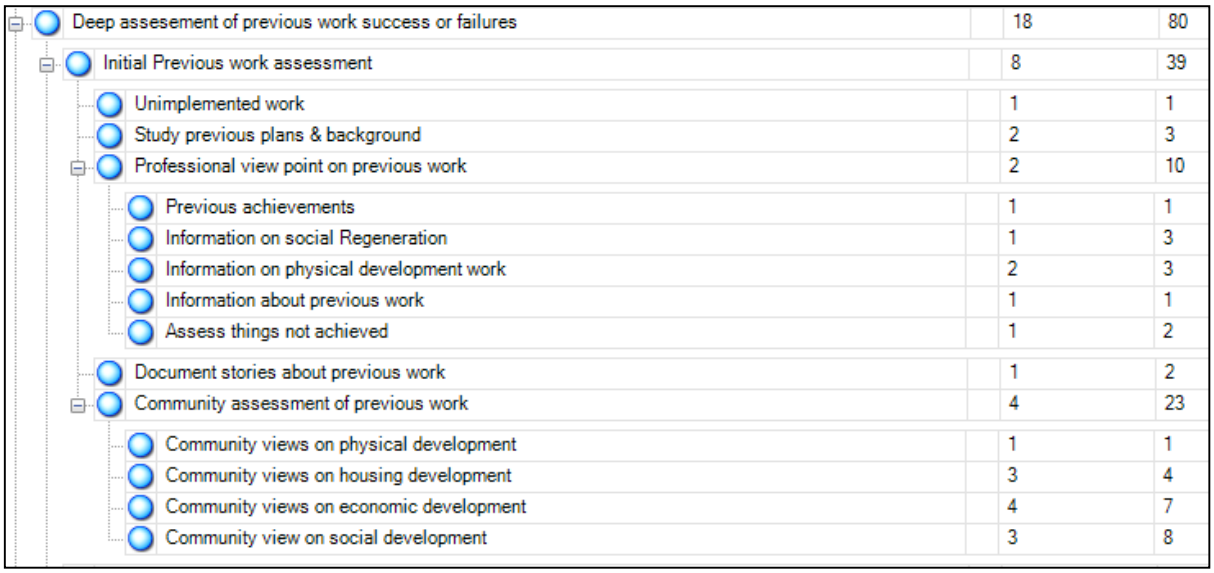


Name	Sources	References
Collaborative central Leadership	8	18
Community based strategy generation	7	22
Comprehensive area potential identification	5	9
Deep assesement of previous work success or failures	18	80
Democracy	5	6
Identification of limits & boundaries of development	6	8
Non linear assessment of other area specific conditions	7	16
Non linear deep urban analysis of the current situation	10	43
Non linear deep urban analysis of the needs	14	67
Selective community based design development	15	21

5.4.1- ASSESSMENT OF PREVIOUS WORK SUCCESSES OR FAILURES

Assessment of previous work successes or failures is a unique KF that emerged only in this case study. The following figure (5.3) is the coding structure developed for this KF. In this section the researcher has explained how this KF was established, why this KF is important and how to conduct an in depth assessment of previous work as a part of the Urban analysis.

Figure 5-3-Coding structure for the KF 'assessment of previous work successes or failures



Deep assesement of previous work success or failures	18	80
Initial Previous work assessment	8	39
Unimplemented work	1	1
Study previous plans & background	2	3
Professional view point on previous work	2	10
Previous achievements	1	1
Information on social Regeneration	1	3
Information on physical development work	2	3
Information about previous work	1	1
Assess things not achieved	1	2
Document stories about previous work	1	2
Community assessment of previous work	4	23
Community views on physical development	1	1
Community views on housing development	3	4
Community views on economic development	4	7
Community view on social development	3	8

Under the integral assessment feature for regenerative design the researcher needed to conduct a full system analysis in order to construct a story of the place. As described in regenerative design at the integral assessment stage it is necessary to meet community leaders, community based organisations etc. Accordingly, the researcher conducted three

focus group discussions with the officers from the Community Forum and also with the President of the Community Forum. During interview number 02 (IV 02) the President of the Community Forum said;

> *'the regeneration work is taking us backward not forward, the work they did was not what we asked for, previous regeneration created a new district centre, we did not want a new district centre under that they built up a supermarket which is not used by us as it's not affordable, we still go to somewhere else for shopping needs, because we have cheaper super markets there'.*

The statement from IV 02 was also supported by all three focus groups, as follows:

> CF 01- *'A leading retail supermarket was built as the key centre for shopping needs, but we do not visit there, we did not ask for that, we wanted some budget supermarkets as we cannot afford that super market but they built what we said no to, we do not use it, we still go to a different area for out shopping needs'.*
>
> CF 02- *'Under a previous regeneration they created a new district centre that we did not want, the supermarket built in that is not affordable, we still go somewhere else where there are budget supermarkets'.*
>
> CF 03- *'the district centre implementation is a failure, we do not use the supermarket there, it's not affordable for us we still shop somewhere else where we have budget supermarkets'.*

The above information was derived from community leaders (officers from the Community Forum) in the early stages of the urban design process which comes between the problem identification stage and the urban analysis stage. Based on the above findings the researcher was able to identify that people were not totally satisfied with the previous regeneration work, especially in regard to the district centre development. This information was derived at an early stage by the researcher due to the incorporation of the integral assessment feature from the regenerative design process. Had the researcher conducted a standard problem identification and urban analysis, a full system analysis would not have been conducted and specific analysis of the previous development work would not have been undertaken. Therefore, in an urban design process if previous regeneration work is not assessed at an early stage the professional actors will not know whether the previous work was acceptable to the community. This indicates that in a UD process the project team should have a thorough understanding of previous development work. Therefore, at this point, the KF

‘deep assessment of previous work’ can be initially established but it is still necessary to investigate the following two questions:

- Is it extremely important to assess previous work in the UD process?
- If so, how can it be done?

Accordingly, the researcher further investigated the data in order to measure the importance of assessing previous work in the UD process. The community interview (CIV06) which was conducted with wider community engagement expressed the following statement:

> *‘I think the district centre relocation was not planned well. I live in middle of the estate, earlier I had access to it within a 20 minute walk, but they have moved it further away from the estate. They selected the location according to the needs of the supermarket they built. They wanted to locate near to the motorway so they can attract more people. But planners did not think about the convenience of the people from the estate’.*

In support of the above perception from the CIV 06 community interview 10 (CIV 10) said:

> *‘my view is it’s not a community friendly decision, because Field Farms road is in the middle of the estate, so I know when we had the Kingston Arcade it was centrally located for all the people on the estate, but now the new district centre is located near to the motorway not centralised and easily accessible by the community. The location they selected to move the district centre was unclear’.*

Furthermore, community interview 3 (CIV 03) agreed with the previous findings saying:

> *‘I think Kingston Arcade was better. It was located more centrally to the area. This is not centralised. We go to the next town because it is easy and not expensive. Currently the new road to new centre walk is too far to go’.*

The community perception identified previously was also strengthened by CIV 02 who stated:

> ‘*There was no need for that super market to be here; there is no use for an expensive supermarket in the middle of a social housing area’.*

This idea has been confirmed by CF 09 saying:

'That supermarket is not affordable, we need more local shops, and also currently I go to the other town as I can buy everything there'.

Providing counter arguments to the previous cited community ideas, CIV 01 mentioned:

'the new district centre movement was a good thing the previous centre was already in a bad condition, therefore, its good the district centre was relocated'.

CIV 09 *agreed with the above statement:*

'The new district centre is better, our previous centre was already in a bad state, but I have an issue with the supermarket, because it's not affordable'.

Based on the discussions above, it is clear that conducting a deep assessment of previous work is extremely important as it allows a clear look back on past work. As happened in this case study the results obtained from assessment of previous work may not always be uniform, but in a sustainable UD process it provides indications about the outcomes from previous development work from the people who actually use it.

However, based on the above findings the following facts were established regarding the importance of conducting an in-depth work assessment,

- In-depth assessments of previous work lead the current project team to understanding how the previous spatial changes have been adopted by the community.
- To see which strategies have failed and the reasons why
- To discover what needs to be addressed within the development based on the failures of the previous development work

In IV02's interview it was stated that the regeneration has gone backwards, with an assertion that previous regeneration work has removed their social gathering places. The following statement describes IV02's feelings about the previous work:

'We had some where to go to socialise but there is nothing now, we had pubs with reception halls for weddings, birthdays etc., and we had social clubs; `everything was taken from us, (places we had for socialising) no idea why it was done'

This idea was also supported by CF 1 who agreed that the regeneration has taken away their social gathering places.

The above findings further strengthen the need for previous work assessment because it offers an opportunity for the project team to assess whether previous development has caused any additional problems in the area. This is extremely important because a regeneration project should solve problems not create more problems, and any regeneration project that causes additional problems could be deemed to be a failure: therefore, assessing previous work allows the professional actors not to repeat the same mistakes.

In relation to the whole system assessment of regenerative design at the integral assessment stage the researcher studied previous published documents regarding about the area under consideration and was conversant with many details about previous plans that had been proposed and implemented in the area. In DR 10 the reasons for previous regeneration work were presented. Revaluating the aims and objectives of previous plans from the community's view on the implemented work provided the researcher a strong perspective of the failures and success of previous development work. Additionally, the researcher interviewed professionals who had been involved in previous development work and after interviewing IV1, who had been a key person involved in previous work, the researcher was aware of comparative information about the purpose for the previous project, the proposed strategies, initiative that had not be implemented and what needed to be done in the future. The following statement illustrates some of the information derived from interview 1(IV1):

> *'The previous development saw a lot of demolition, clearance of the precinct, new dwellings, housing improvements, homes for sale, site clearance for the elderly persons home and most importantly the district centre. However much physical buildings were improved through previous regeneration, much work needed to be done to improve social life, especially public places for the social gatherings; plans were made to improve the public realm but were never implemented. Furthermore a special note should be made that we were really successful regarding housing improvements in the previous project.'*

The above statement helped build a strong picture of the previous development work and its failures and successes. The interviewee specifically noted that successful work took place in the area of housing development and in support of this IV 02, President of the Community Forum stated, '*the housing improvements are really good*'. This indicates that previous work assessment allows a comparison, using evidence from different parties, of the successes and failures of previous work and provided a comprehensive picture for the new project team which was extremely helpful. In this case DR 08 revealed that the housing improvements

were conducted by a different housing association and since the community is happy about the housing improvements the researcher could see that the third party who implemented housing work had successfully completed their work.

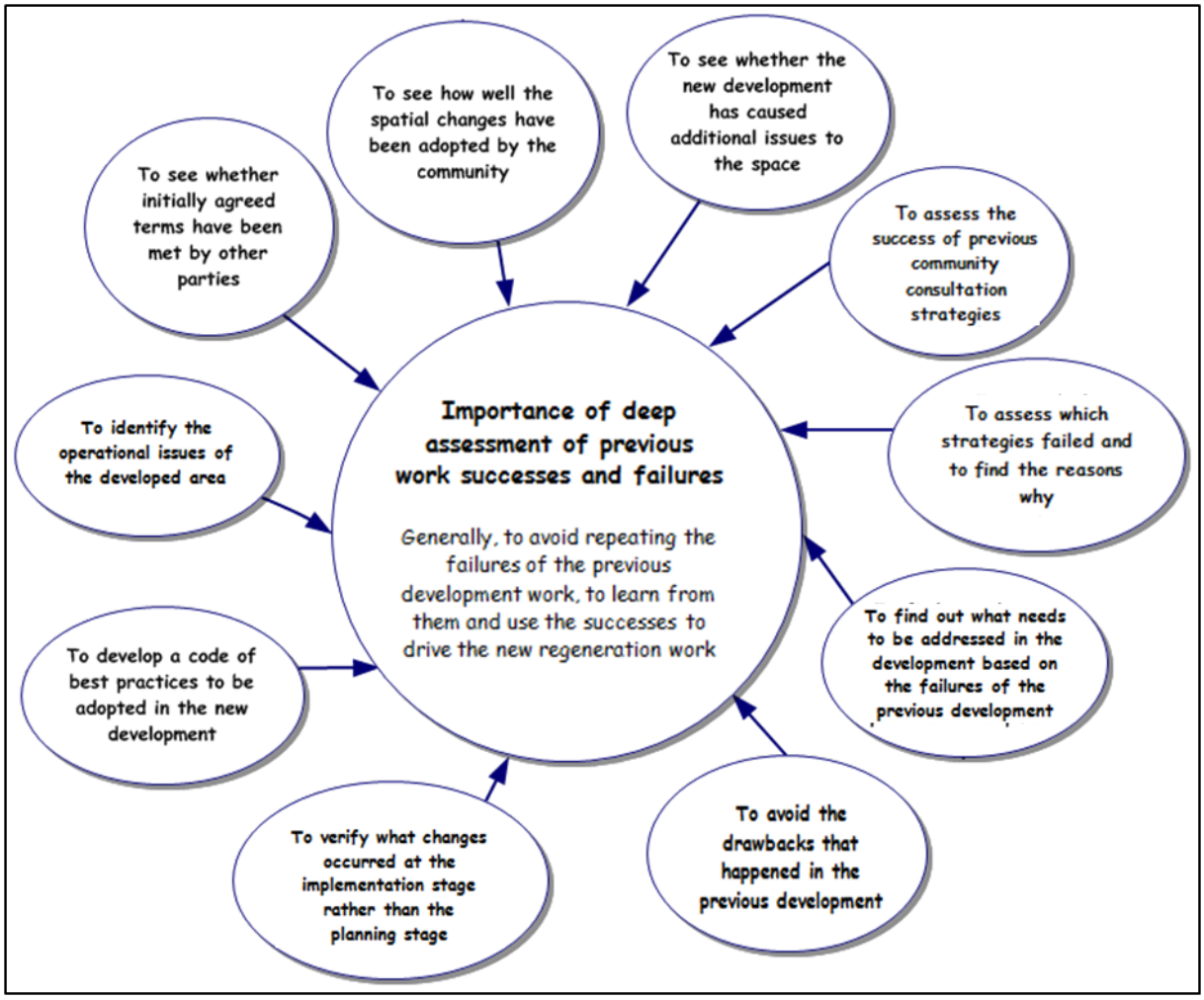
DR 6 summarised the consultation and communication plan for the previous regeneration work however, the interviews with community members showed them to be extremely unhappy with the community consultation strategy that had taken place in the previous development work. The following comments indicate the community's viewpoint of the communication strategy conducted in the previous work:

> CIV 09- *'Not happy as they did not listen to us, what they did was just show us some plans and then did what they wanted, we know the issues of this area so they should have consulted us, rather than take decisions on their own. They have created more problems for us rather than solving the problems we have and had'.*
>
> CIV 10- '*The location they selected to move the district centre was unclear, they just informed us after preparing everything but never consulted us to select the location, but at the last minute they just did a workshop and informed us what they were going to do, these workshops are useless as they do not want see the true ideas of the community'.*

In summary the above discussion reveals that previous work assessment allows a new project team to evaluate the community communication plan from the previous regeneration work. Having a strong picture of this is really important so that professionals can lean from the mistakes that happened in the previous work and ensure these not repeated in the new UD project.

Based on all these discussions it can be concluded that an in-depth assessment of previous work is an extremely important KF factor. The following figure summarises the importance of this KF:

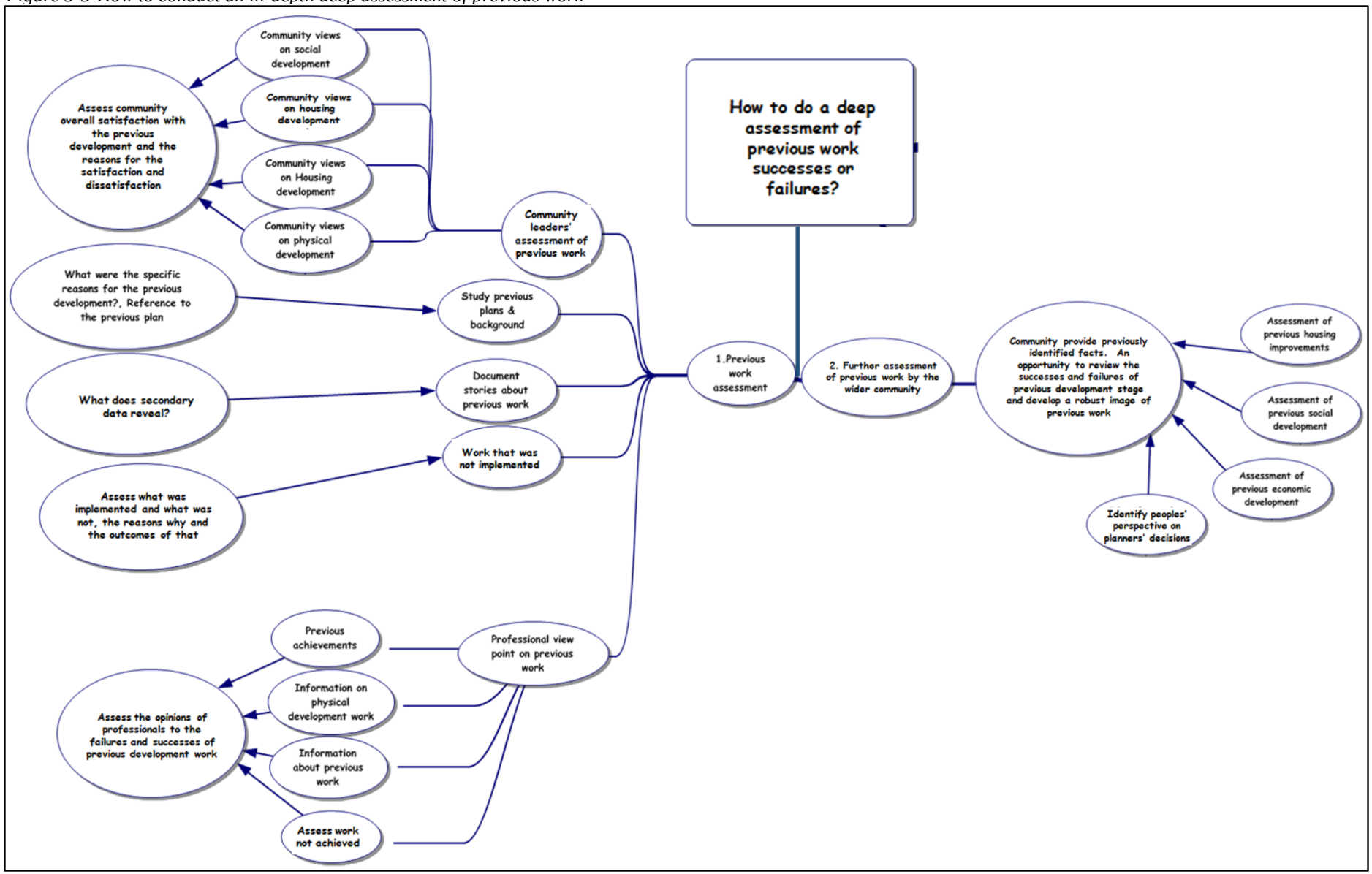
Figure 5-4-Importance of previous work assessment



After establishing the KF and its importance it is necessary to identify the steps for conducting an in-depth assessment of previous work. Actually, this KF was derived by employing features from the regenerative design process, and therefore, the way in which the researcher obtained the information to establish the KF stands as an effective step to conducting an in-depth assessment of previous work. Accordingly, at the integral assessment stage the researcher consulted community leaders regarding previous work and also interviewed key professionals who were involved in the previous development work along with undertaking a comprehensive review of previously published documents including the previous plans. Thereafter, the findings from the integral assessment were further shaped by engaging the wider community. The findings from the previous study were the basis to

further analyse the previous work by engaging wider community. In this way the researcher established the KF and its importance and no difficulties were encountered with the assessment of the previous work due to the manner employed by the researcher. Therefore, the researcher suggests that in-depth assessment of previous regeneration work should be conducted in a similar way. The following figure summarises these issues:

Figure 5-5-How to conduct an in-depth deep assessment of previous work



5.4.2-NON LINEARITY VS LINEARITY

One of the specific features that emerged from this study is the non-linear nature of the UD process. This has been deeply evident at the problem identification and urban analysis stages. Based on this non liner nature, three KFs have evolved. The three KFs convey three interrelated, but different analyses, which should be carried out at the urban analysis stage of the UD process framework. As extracted from the KFs established, the exact meaning of 'non linearity' refers to analysis of the urban environment based on different sources rather than relying on a single data source. These three KFs and their components were derived by employing specific features from the regenerative design process. The specific features from the regenerative design process reveal that the community plays an influential role and also should be considered to be a prominent source of data collection. In addition to the community's role secondary data sources and opinions from professional actors, who have relevant experience of development work in the urban entity, are also important data sources. Accordingly, as earlier described, the establishment of these KFs are outcomes from the employment of specific features from the regenerative design process, and therefore, each KF illustrates how well the features from the regenerative design process worked in the UD process environment and how those features have been modified according to the nature of UD process.

5.4.2.1- NON LINEARITY IN CURRENT SITUATION ANALYSIS

'Non-linear assessment of the current situation' was the first KF to emerge from the three KF established related to maintaining non linearity. In simple terms this KF illustrates the need and importance for a comprehensive understanding of the exact situation of the urban entity and the reasons for the current situation.

The focus group discussion from the Community Forum (CF 03) described the current situation in the area with the specific reasons for the current situation. The following are some of the ideas extracted from focus group CF 03:

> *'The area is facing with more crime because there are lots of grey areas and blind areas. This is because of the bad design of the area, we have many open areas but they are not designed to be used as interactive social places. So on one hand we do not have places for socialising and as well as these undeveloped open spaces create security issues'.*

In support of this comment CF 01 mentioned:

> *'We do not have any public places, not even a pocket park and there is not even a place for the children to play and also youths don't have a place for socialising which is why there is a problem of vandalism as they do not have anything to do'.*

The CF 02 has further noted:

> *'Our main issue is we do not have a space for social interaction, at least a well-designed open space, just to sit and relax; also, generally, we have a very poor layout design'.*

|In support of the above statements from CF 02 and CF 03, CF 01 also mentioned:

> *'More crime because of lots of grey areas and blind areas, therefore, these areas should be developed as peoples' attractions'.*

Furthermore the President of the Community Forum (IV02) has stated that they have an issue with the security due to the many undeveloped 'grey' areas.

Based on the perceptions of community leaders in the focus groups and also from the interview conducted with the President of the Community Forum the researcher was able to understand that through the engagement of the wider community positive facts were revealed in the assessment of the current urban environment. As indicated by the statements above community leaders were able to reveal exactly the crucial issues of the area and the reasons why they were important.

The researcher neither found any difficulty working with community leaders nor extracting information; in fact they were very keen to be engaged in the process and appreciated the researcher for consulting them at this stage regarding the situation analysis of the urban environment. Following are some of the statements quoted from the focus groups showing their appreciation of the researcher for consulting them at the early stages of the UD process:

> CF 01- *'It is really good that you ask about these problems because we have never had this opportunity and we know the exact problems of the area in which we live. Previously, we were just informed us about what was to be done and we never had a chance to tell them about the exact situation'.*
>
> CF 02- *'It's good you ask about these things, but when they do this, they do not ask questions of us they just do what they want.'*

Based on the above evidence it is clearly demonstrated that community leaders are extremely useful in diagnosing the urban environment and they are capable of assessing the exact urban conditions and specific reasons for local conditions. Accordingly, at this stage, the researcher was able to establish part of the KF which is; 'it is necessary to examine deeply the current urban conditions with the exact reasons for the current conditions'. However, the researcher wanted to further examine how and why a deep examination of the current urban condition could be executed.

Accordingly, as per the full system assessment nature of regenerative design, the researcher interviewed key project officers who had worked on the previous development activities. The following paragraph is a summary of his overall thoughts about the place and even though it is quite long it is extremely important to quote this statement as this reveals a great deal of information about the urban environment,

> *'Previous development addressed many physical development issues, it made the place tidy, clean, improved the quality of buildings., Physical development helped certain issues, but most of the long term social issues still need to be addressed. Long term unemployment is still an issue, there are big problems with crime, many people are on job seekers allowance, there are deprived areas, lower attainment to school, poor health, (mortality 60% lower than the national average) and, physically isolated areas. The two main problems are: Anti-social behaviour (youth disorder) and problems with drug dealers. The area is not visitor friendly: People pass through but have no reason to remain, The area has a bad reputation - youths do not put their address on their CV's as they do not get an interview if they come from this area. A contractor who gets a job to do in this area will not do a good job as they believe there is no need to do a good job for the people in this area. Another major issue is that there is no secondary school in this area; children go outside the area for secondary schooling. Teachers treat the children from this area differently than other students as they believe that students from this area are criminals or vulnerable people, therefore, they think that there is no need to treat them equally as the other children. The area was quite good until 70s and 80s when it began to decline, tower block design caused a lot of problems (no security, vandalism, and entrances open to drug dealers) however, the tower blocks have been demolished but the above issues still need to be addressed'.*

By conducting this interview the researcher was able to see the urban environment from a different perspective. The project officer outlines what had been done to the area, what had not been done, and what needs to be done in the urban entity.

Accordingly, this further established the idea of the 'need for a deep assessment of the current urban condition with the specific reasons for the current situation' which was initially derived by engaging the community leaders. Whilst the community leaders stated their viewpoint of the exact situation, the project officer was also able to report the exact status of the urban entity from his perspective. Based on this the initial KF derived, which was 'deep assessment of current situation with its reasons', was further shaped by adding 'nonlinear' to the 'deep assessment of the current situation with its reasons'. However, as per the regenerative design process an urban diagnosis should be undertaken by also referring to secondary data sources and also obtaining information from the wider community. Accordingly, it was still necessary to examine whether the KF was viable or not in the UD process.

The DR 06 has stated:

> *'The previous section of the report indicates that the area has been in a state of decline in the past, progress has been made to improve the area as evidenced by the demolition of the high rise tower blocks and selective demolition of unpopular property types, however many social development work to be done to the area'.*

The above information derived from documentary sources also informed the researcher that secondary sources are also good source for undertaking a deep assessment of the current urban situation, but the most important thing in doing this is that the documents referred to should be new and up-to-date in order to compare and contrast the exact urban condition.

Thereafter, as per the regenerative process, it is necessary to engage the wider community in the urban analysis, and therefore, the researcher wanted to ascertain whether the wider community were able to clearly state the exact condition of the urban environment. The following discussion is about the engagement of the wider community in assessing the exact urban condition.

CIV 01 stated:

'We do not have anywhere to socialise, we are isolated as in the middle of a desert'.

In support of the above statement CIV 03 noted:

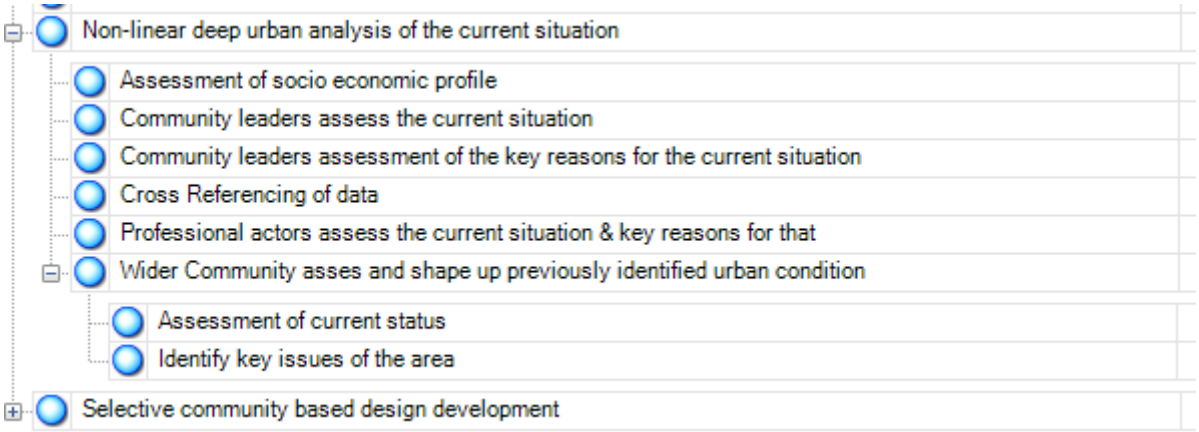
'We do not have any places to socialise and we have to travel to other towns to find a public park'.

Furthermore CIV 06 also mentioned:

'There are many underdeveloped areas that have created safety issues; these places could be developed into public places, so we will have places to socialise'.

The above findings from the wider community are directly linked to the findings of community leaders and also to the socio-economic profile and the comments from professional actors. This indicates that even the wider community can describe exactly the current urban condition. Based on all this evidence the researcher established the KF 'non-linear deep urban analysis of the current situation'. This KF establishes the need for a comprehensive analysis to identify the exact urban conditions rather than relying on only one particular data source. According to the established KF the community is the most important data source in identification of the exact urban condition, and therefore, this KF encourages the employment of the community at this point in the UD process. The node structure derived for this KF is as follows:

Figure 5-6-Node structure developed for KF 'non-linear deep urban analysis of the current



In a similar to the previous KF the researcher was able to establish this KF and obtain successful results by employing the features of regenerative design. Therefore, the researcher suggests the adoption of the characteristics of regenerative design in order to

undertake a ‘non-linear deep urban analysis of the current situation’. Figures 5.7 and 5.8 are mind maps developed for this KF and they illustrate the importance of this KF and the way to conduct ‘a non-liner current urban environment assessment’.

Figure 5-7-importance of non-linear deep urban analysis in the current situation

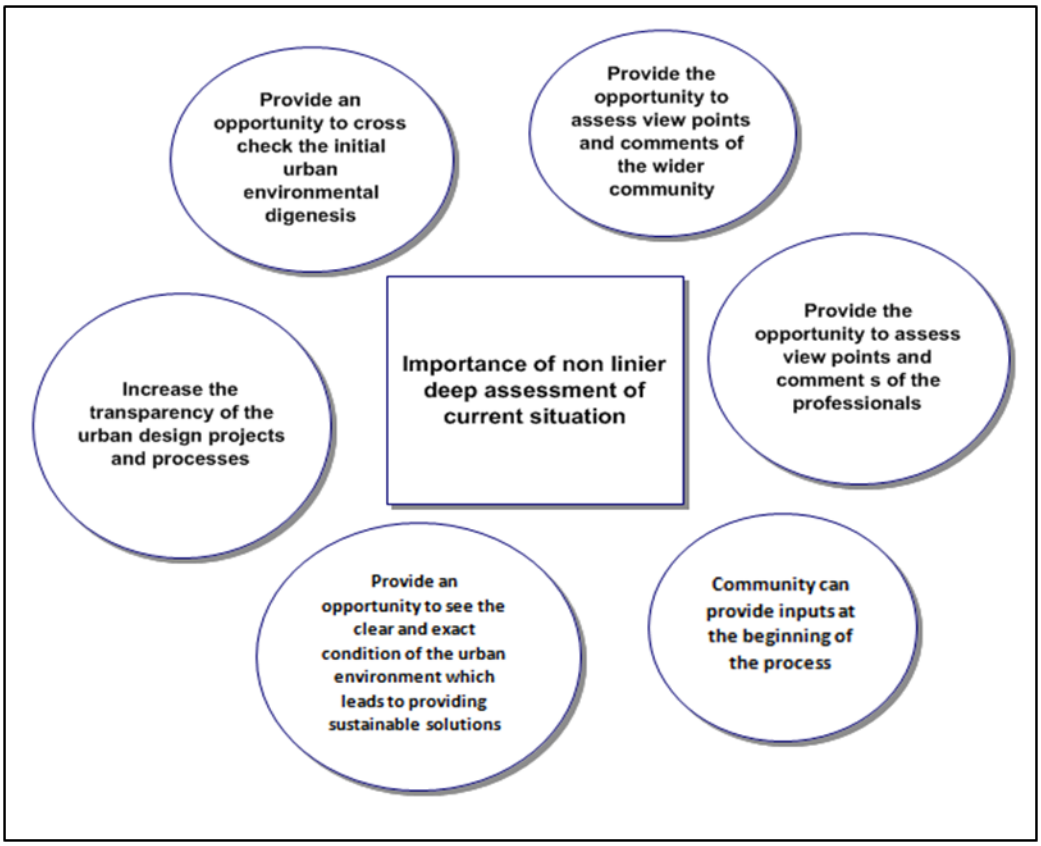
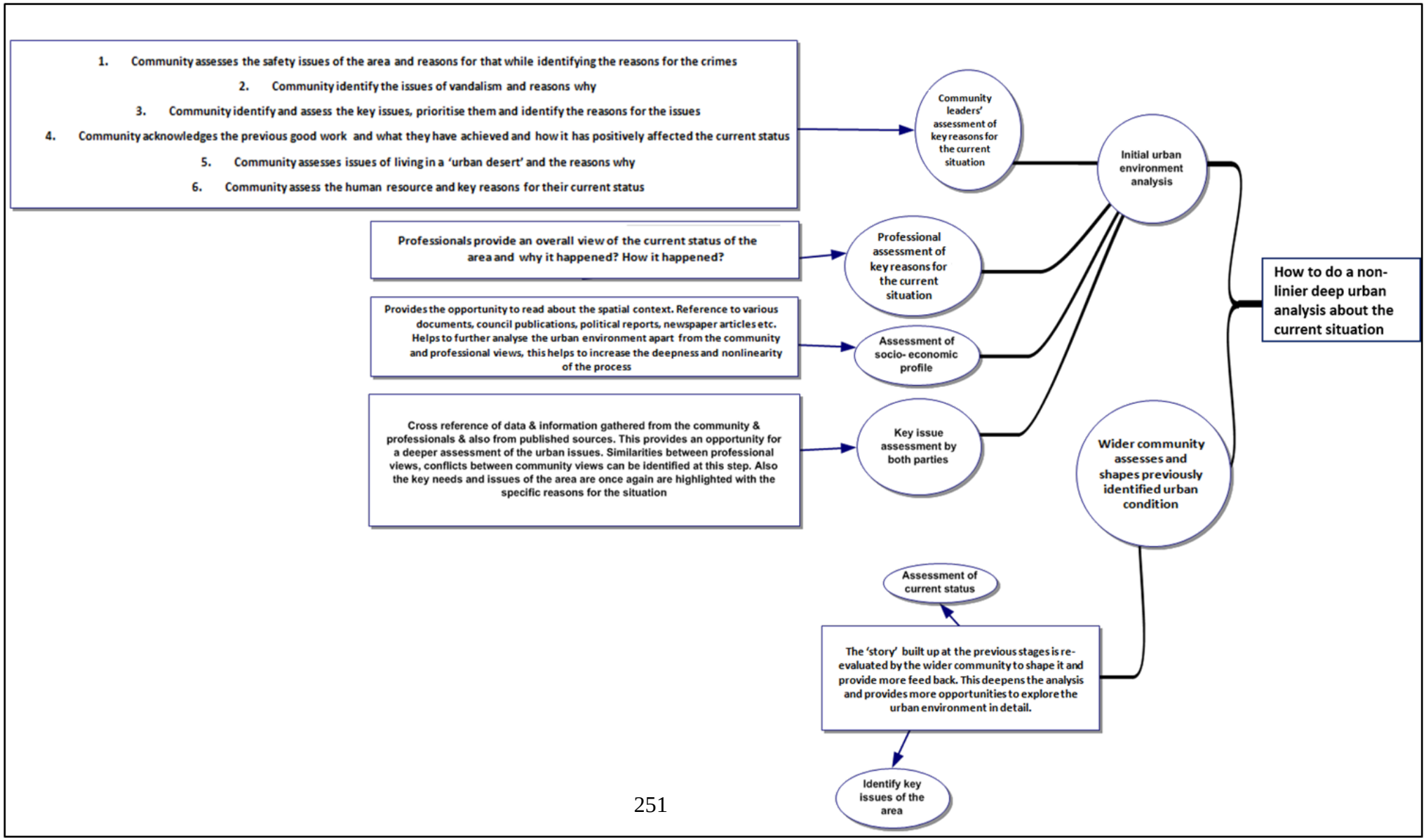


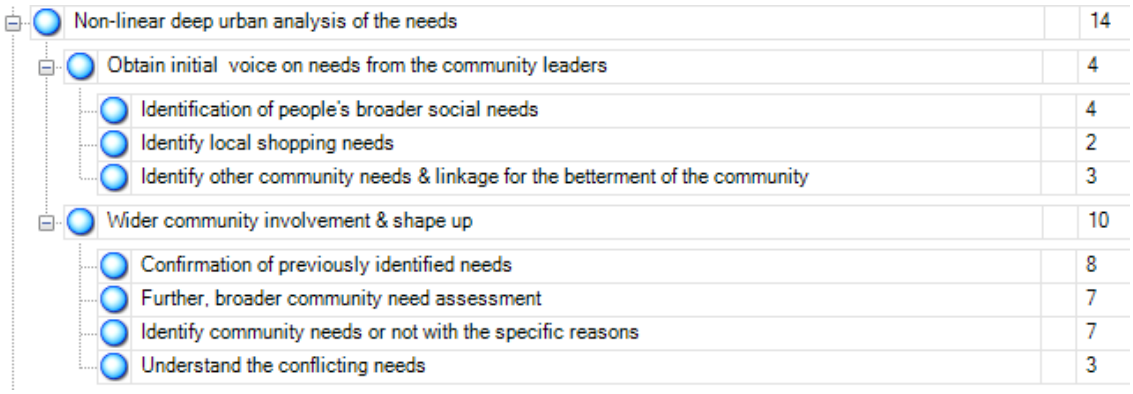
Figure 5-8- Ways in which to do a non -linear deep urban analysis of the current situation



5.4.2.2- NON LINEARITY IN NEED ANALYSIS

This section is linked to section 5.4.2.1. This section specifically discusses the need for deep assessment of the current needs of the urban entity while the previous section identified the exact current condition of the urban entity. The figure below illustrates the node structure developed for this KF,

Figure 5-9- Node structure for the KF non linearity in need analysis



As per the regenerative design process under integral assessment the researcher initially met community leaders to construct a 'story' of the place, accordingly, CF 03 directly stated their needs and why, in particular, they are not unattractive. The following statements are derived from CF 03 regarding their needs and the reasons why:

> *'We need public places on the estate as there are no open public places, furthermore we need children's areas as there is no places for children to play, we need something like pocket parks as there is a considerable number of growing children on the estate but there is no place for them to play'.*

CF 01 stated:

> *'The whole estate doesn't have a place for physical activities such as a gymnasium, etc.'*

Even though the statement of CF 01 does not directly request open public spaces and children's play areas as in CF 03, it illustrates the need for having places for physical activities.

However, CF 01 stated other needs which were also reported by CF 02:

'In this neighbourhood we do not need big supermarkets, we need small shops where we can visit, speak with the shop owner, and then buy things, we like the concept that the shop keeper becomes a part of the community rather than him coming from outside from the community like in big supermarkets'.

A repetition of same need was stated by CF 02:

'We need locally driven shops rather than big supermarkets, we need places in walking distance where we can fulfil our day to day needs'.

The President of the Community Forum has also directly stated their needs:

'We need a public park with a club house, so our children can play there and also youngsters will spend their time in the park and it will reduce vandalism. Furthermore, we need a couple of improved open spaces, we have asked them for just some seating areas in the naturally available open spaces so we can have a walk around the estate and rest in the seating areas, when people are gathered in these places it will increase the security of the area as well'.

According to the above statement it is clearly state by IV 02 the, President of the Community Forum, that there is a need for play areas and open spaces on the estate as raised by the CF 03 and CF 01. In addition IV 02 has stated the need for local shops as noted by CF 01 and CF 02. The quote from the IV 02 is as follows:

'A *lot of small corner shops were on the estate: a milkman and a bread man who called at houses. There were enough places to buy day to day items. Now everything has been taken away and there is only a leading supermarket which is not affordable so people here do not use it. Many of those small shops functioned before they were removed but they contributed to the wellbeing of the people on the estate as those were owned by people from the estate. So we need the local shops back again'.*

According to the above section of analysis, derived from the integral assessment, it is clear that the community needs can be initially identified by engaging the community leaders. As the researcher has demonstrated by the above findings they had no hesitation or lack of interest in raising their particular needs and they were clear on what those needs were, and their requests were made for a particular reason. Furthermore, the community leaders had always cited common needs rather than raising individual issues. The analysis of the above data and information reveals, as per in the regenerative process, that an initial assessment

with community leaders is a possible positive feature to be adopted in the UD process framework. Based on this the sub node 'obtain initial voice on needs from the community leaders' was established under the key node (KF) 'non linearity in needs analyses'. The reasons for establishing this particular sub node are highlighted by the above statements and are summarised in figure 5.10 as follows:

Figure 5-10- Summary of the reasons for establishing the sub node

After constructing the story of the place, as per the regenerative design process, the researcher then engaged the wider community to analyse the urban environment by assessing the specific needs of the community. As per the need assessment with the community leaders two crucial community needs were identified:

- Need for social gathering places, including public parks, opens spaces, children's play areas, pubs etc.
- And, the need for cheaper, local shops rather than a large unaffordable supermarket at edge of the estate.

At the meeting with the wider community CIV 01 stated:

> *'We need more local shops, late opening shops. I use other towns for daily shopping needs because I can't find everything close by at an affordable price'.*

Supporting the argument from CIV 01, CIV 03 also stated:

'We had more shops, now there is nothing. We are not happy as the supermarket dominates, we need local shops within walking distance'.

The statement from CIV 04 also supports the needs mentioned by the previous two community members and further suggests a solution to the issue|:

'We need little independent shops but they cannot afford the spaces, the local authority should help them; if not we prefer budget supermarkets in this area'.

CIV 06 has also directly supported the statement from CIV 04 saying:

'That supermarket is not affordable to us, so we need either cheap local shops or budget supermarkets as in the next town; actually I travel to that town to buy day to day stuff at a cheaper price'.

The need for local shops or budget supermarkets was further supported by CIV 07:

'We need more local options. Butchers, grocers, pet shops, electrical items, may be couple of cheap supermarkets'.

The whole argument built up here has been massively supported and proved by other community interviews.

Thereafter, other community needs which were initially identified by community leaders, such as, social gathering places were identified and supported by the wider community, the following statements were made by the wider community in support of the need for more social gathering places:

- CIV 10- *'Not Enough facilities in HUB for social gathering – library is the only social place but it closes at 7pm so we cannot use it'.*
- CIV 03- '*We had social clubs, pubs, but those were closed. We need an upgraded building with all those facilities i.e., bowling etc'.*
- CIV 05- *'Younger community has difficulty finding social gathering places and parks'.*
- CIV 06- *'Earlier we used the sports centre for social gatherings and the leisure centre. But now we cannot not use it in the afternoons because they have rented it to outsiders for gymnastics'.*
- CIV 07- '*We had social clubs and pubs but they were closed. We need one centre with all these facilities. All the greenery has been taken down. We had a children's*

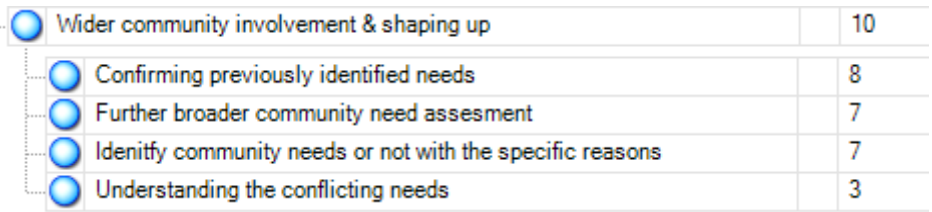
play ground; we do not know why they closed it down. We need nice public parks, nice valley interlinked with public places'

- CIV 09- *'Younger community find it difficult, they have become vulnerable because they do not have a place to socialise, if they had parks, playgrounds they will spend their times there, we are actually in the middle of a deserted town'.*

The NVIVO node structure developed (figure 5.11) indicates that out of the 10 community members interviewed at the wider community consultation, 8 community members mentioned either one or two of the community needs as being important confirming the findings from the initial community assessment with community leaders.

As a whole the above results confirm that the needs identified by community leaders have also been approved and agreed by the wider community. This indicates that the initial need assessment undertaken with community leaders was successful and this re-affirms the exact needs of the community. The researcher obtained all this information by employing the features found in the regenerative design process. As the data above has demonstrated employment of regenerative design features has assisted the researcher to do a complete need assessment for the area. If the researcher had employed a standard urban analysis method such as referring purely to published data or analysis based on field visits by the project team it may not have been possible to understand the specific needs of the community. Furthermore, the community that were engaged in the assessment have demonstrated a strong capability to identify their own needs and they have clearly shown how identifying needs can solve the current issues in the urban entity.

Figure 5-11- Set of second sub nodes for the sub node 'wider community involvement & shaping'



In addition the wider community need assessment not only re-confirmed the needs of the wider community and the ability of the community to assess their own needs but it also

helped to uncover other community needs which were not highlighted in the initial need assessment exercise with community leaders. As CIV 10 stated:

> *'They demolished the secondary school we had under the previous plan but did not build a new one, we are left without a secondary school, we need a secondary school now as our children go outside now'.*

Supporting the statement from CIV 10, CIV 02 stated:,

> *'They knocked down the secondary school, our children go to a school which is far away, so it's inconvenient'.*

The statements made by CIV 10 and CIV 02 have been further confirmed by CIV 03:

> *'Our secondary school was demolished, and because of that the businesses created by the school declined. They did not replace our school, but built a school in a different town. But that school is not accepting our children. So now there is no secondary school for our children'.*

The needs indicated above by community members were reinforced by other community members from the wider community consultation. The following statements were made by other members of the community:

- CIV 05- *'They knocked down the primary school and moved it further away from the area, but there was nothing wrong with the old school. We do need a new secondary school because students have to travel outside the area'.*
- CIV 06- *'They knocked down the high school as well and we do not have a high school. We need one'.*
- *CIV 07- 'The secondary school where my child went was demolished for no reason. But they did not replace it. Other schools do not accept our children. So there is no secondary school for our children'.*

As figure 5.11 indicates, 7 community members out of the 10 community members who participated in the wider community assessment raised this issue which proves that involving the wider community in the assessment is essential in order to identify the community needs which were not highlighted in the initial assessment with the community leaders. Furthermore, as the researcher experienced and as indicated by the above findings the wider

community did not have extremely different viewpoints on their needs; they were keen to engage in this exercise and were very clear about what exactly was needed.

As demonstrated by above data, and as described above, many of the community members were very clear about the reasons why they require that specific need; indeed, community members were very specific and strategic with the project team about their requirements. The following quotes were taken from the community interviews which indicate how clear they were about their exact needs by being specific with the reason behind the need:

> CIV 03- *'one of the key reason for the vandalism is the lack of available places for young people to socialise either indoor or outdoor, since they have nothing to do they have time to vandalise.'*
>
> CIV 07- *' if they redesign the open spaces naturally available to us, people will use them, people will be attracted to those open spaces and it will increase the security of the area, the areas with bushes are too open so anyone can hide'.*
>
> CIV 09- *'We need local shops to be maintained by local people which will be a good strategy to reduce unemployment on the estate'.*

These statements prove how clear and knowledgeable the community in general is about their needs and the reasons behind those needs.

Even though the researcher had trouble-free meetings with the community and community leaders regarding needs assessment, the researcher found instances with of conflicting ideas within the community. According to the CIV 04:

> *'Actually there is no need to develop public parks. We need play areas but there is no point providing them as the children do not respect any development. You can provide it but they use it miserably such as for vandalism'.*

Further CIV 06 has stated:

> *'We have enough facilities in the HUB for social gathering'.*

The reasons for the opposing viewpoints could be due to the personal feelings of the community member or maybe they are seen to have a particular personal effect on the proposed development. This was one of the key disadvantages the researcher found in the wider community engagement, but as a whole the wider community engagement for need analysis has generated significant positive results for the a comprehensive need analysis at

the urban analysis stage. Therefore, it would appear that effective management was needed to deal with conflicting ideas through a strong project leader and this has emerged as a different KF entitled ‘centralised collaborative leadership’. Figure 5.12 summarises the importance and the reasons of wider community engagement for needs analysis.

Finally, by combining ‘initial community need assessment with the community leaders’ and ‘wider community need assessment’, as per the regenerative process, significant, positive results have emerged for the potential new UD process, and therefore, the non- linear nature of assessing the community needs has formed the KF ‘non Linear deep urban analysis of needs’. Figure 5.13 summarises the importance of ‘non linier deep urban analysis of needs’ for a potential UD process framework.

However, in summary, the researcher supports the employment of regenerative design features at the urban analysis stage as it established an important KF which certainly helps to conduct a complete need assessment of the community.

Figure 5-12- The importance and the reasons for wider community engagement in need analysis

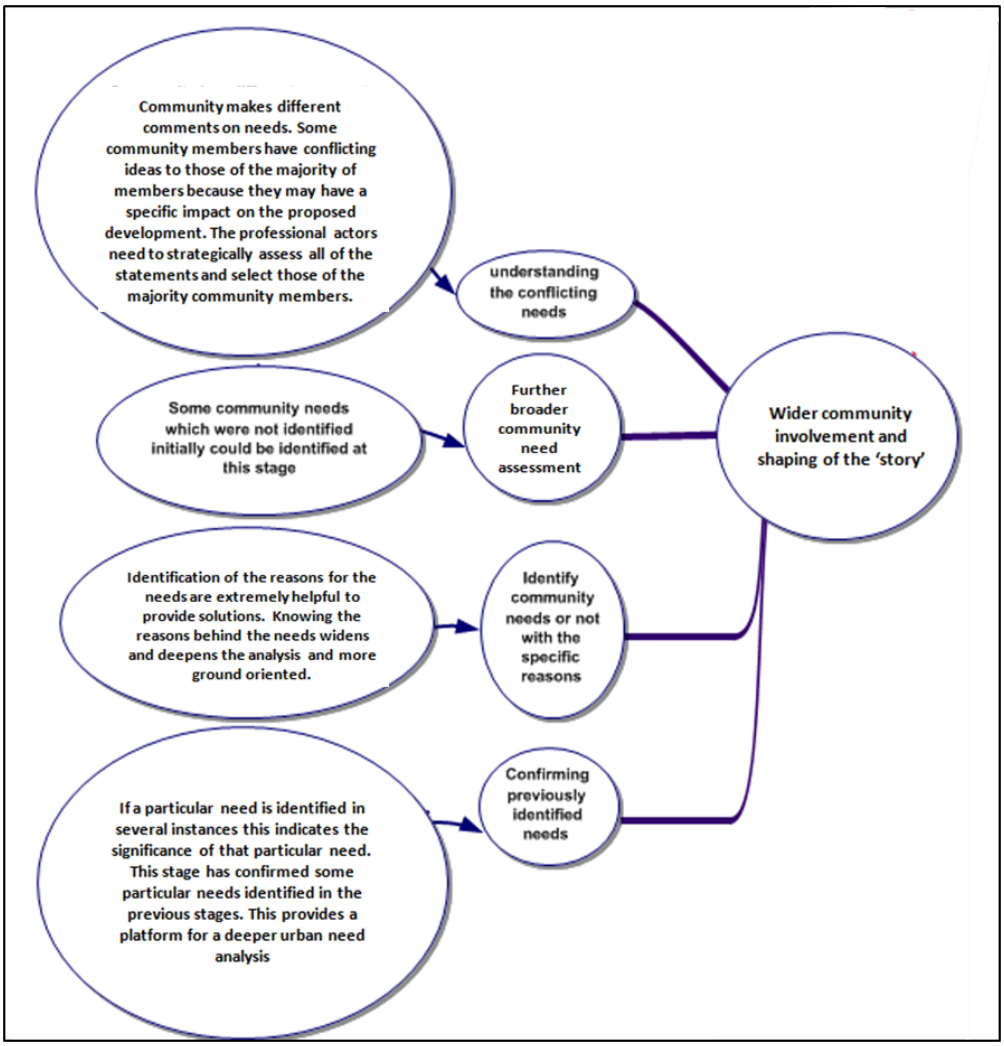
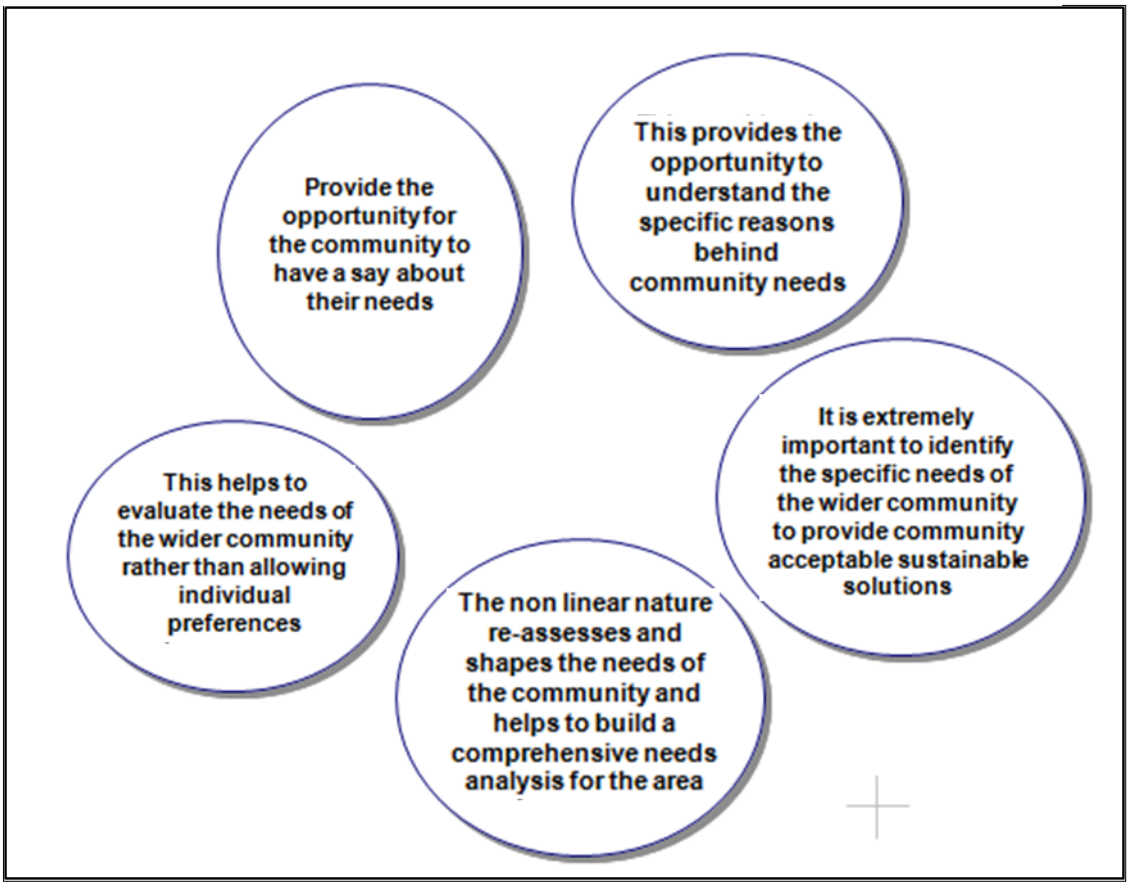


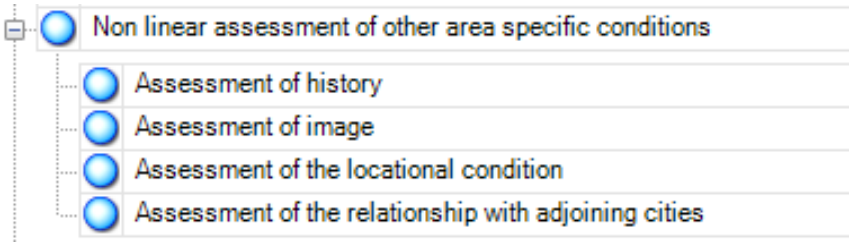
Figure 5-13- Importance of non -linear need assessment



5.4.2.3- NON LINEARITY IN AREA SPECIFIC CONDITION ANALYSIS

'Non linear assessment of other area specific conditions' was another specific KF that emerged from this case study. According to the regenerative design nature, to fully understand the urban entity the researcher initially conducted the integral assessment and then constructed a 'story' about the place which was later shaped by involvement with the wider community. Within this deep urban analysis by using different data sources the researcher was able to extract several important, specific features which should be assessed in a complete urban analysis. The researcher will first introduce the specific features identified and will then discuss how each and every specific feature was derived. The following figure illustrates the node structure developed for this KF and the sub nodes represent the specific features identified in this KF.

Figure 5-14-Node structure for the CSF 'non-linear assessment of other area specific conditions'



CF 01 has stated that the area was originally farmland, and therefore, developing some areas using this historical identity may help to increase the image of the area. The historical finding about the land use was also to be found in DR 10 containing an executive summary of the area. Furthermore, IV 02 the President of the Community Forum also stated that the area was originally farmland but there was also a large cotton mill in the area. The following quote is from IV 02:

> *'This was a farmland before the estate was built, but this area has a history of the cotton industry, the mill building is still here as listed building. Maybe we could convert the mill building to a museum so people will come here and it will create economic opportunities for the community on the estate'.*

The above statements shows the awareness of community leaders about their own local history. However, what is most important is not only the awareness of community leaders but their suggestion to link the history of the area into the current development. Even if the community did not suggest the historical link with the current development it is still extremely important professional actors to be aware of such history in order to have a comprehensive idea about the urban entity. The following statement was derived from IV 01's interview and proves the importance of knowing the history of the area in urban design and development:

> *'This is a physically isolated area, and people were relocated to this estate. The neighbouring people did not want to this estate to be built here, because of this the area does not have a good relationship with the neighbouring towns'.*

The above statement confirms the reasons for the poor relationship with other adjoining areas, and it also confirms the importance of assessing local history to diagnose the urban environment in detail.

CF 01, CF 02 and CF 03 have stated that the murder of two police women was not committed by a resident of the estate, however, which was how it appeared in the media CF 02 stated the following:

> *'It is important to mention the reputation of our estate, the killer of the two police women was not from our community he was an outsider who recently moved here and never was a part of our neighbourhood or community, but the media portrayed as an incident from our estate'.*

The idea of the image of the area put forward at three community forums was further established by IV 01 and IV 02. According to IV 02:

> *'It's a matter of trust, trust between outsiders and our community, the bad reputation has affected the whole community, but the real picture is not that bad'.*

The IV 02 has stated:

> *'Because of the bad reputation of the area, young people do not put their address on their CVs, because if they put their address on their CVs they will not get an interview'.*

The above statements confirm that assessing the image of the area is extremely important so that the project team can introduce appropriate solutions to address the current issues. If no deep assessment was conducted under the regenerative design, the researcher may not have been able to reveal such specific, important features. Therefore, this establishes the need for assessment of the area's image under the KF 'non-linear area specific condition analysis'.

The CF 02 has stated

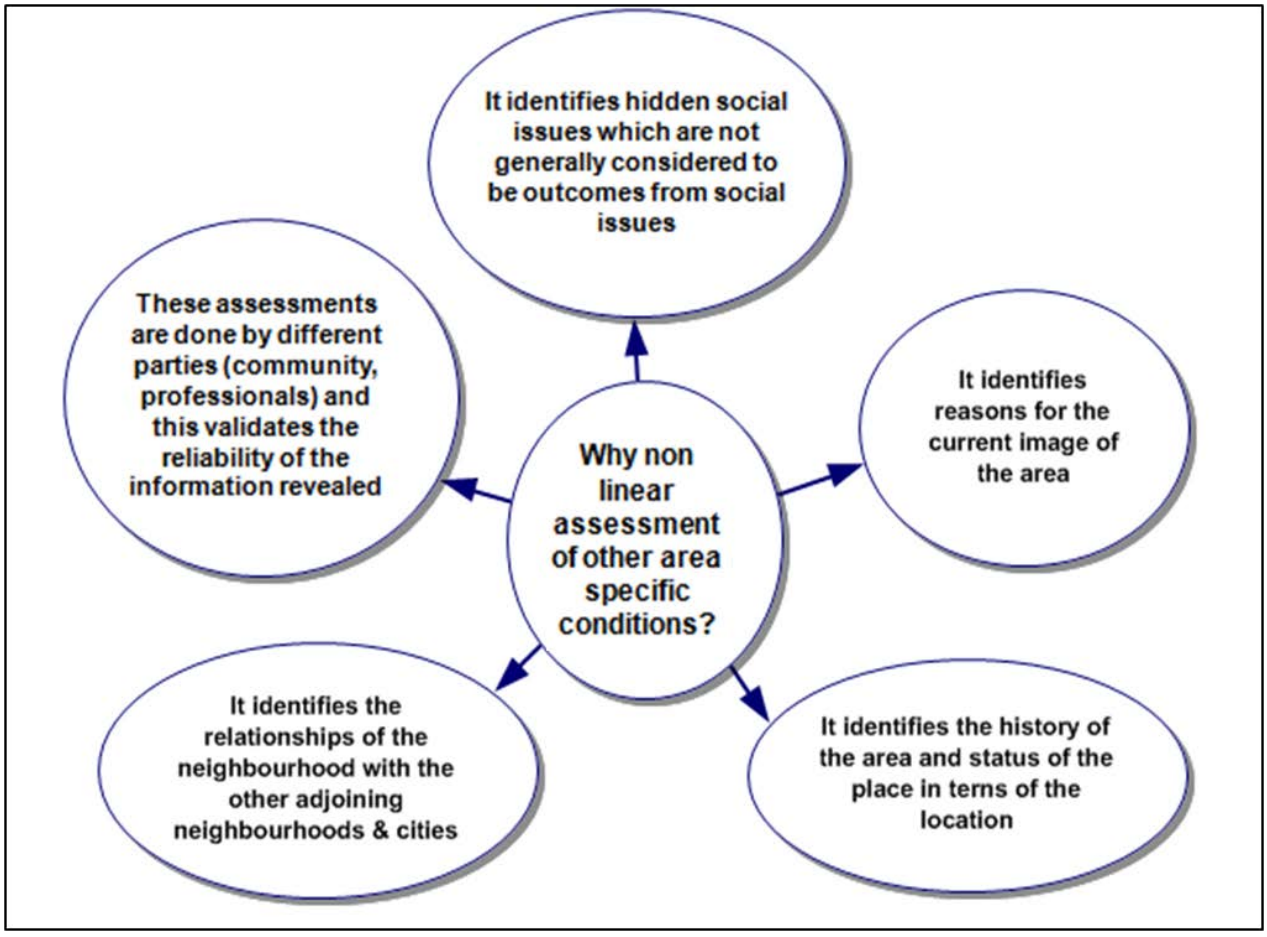
> *'The housing improvements done are really good and we accept their work, but it's not the case elsewhere, we need a developed neighbourhood, we still feel that we are living in a middle of a desert'.*

This statement had been established earlier by IV 01 who had stated that the area is physically isolated. Therefore, these findings indicate the locational condition of the urban entity and its relationship with adjoining towns and cities. As IV 01 stated the neighbouring areas had been against the construction of the estate on farmland and did not maintain any relationship with the area in question. IV 02 stated:

> *'People never visit this area, they blame this area for many things and the media should present some positive propaganda about our estate.'*

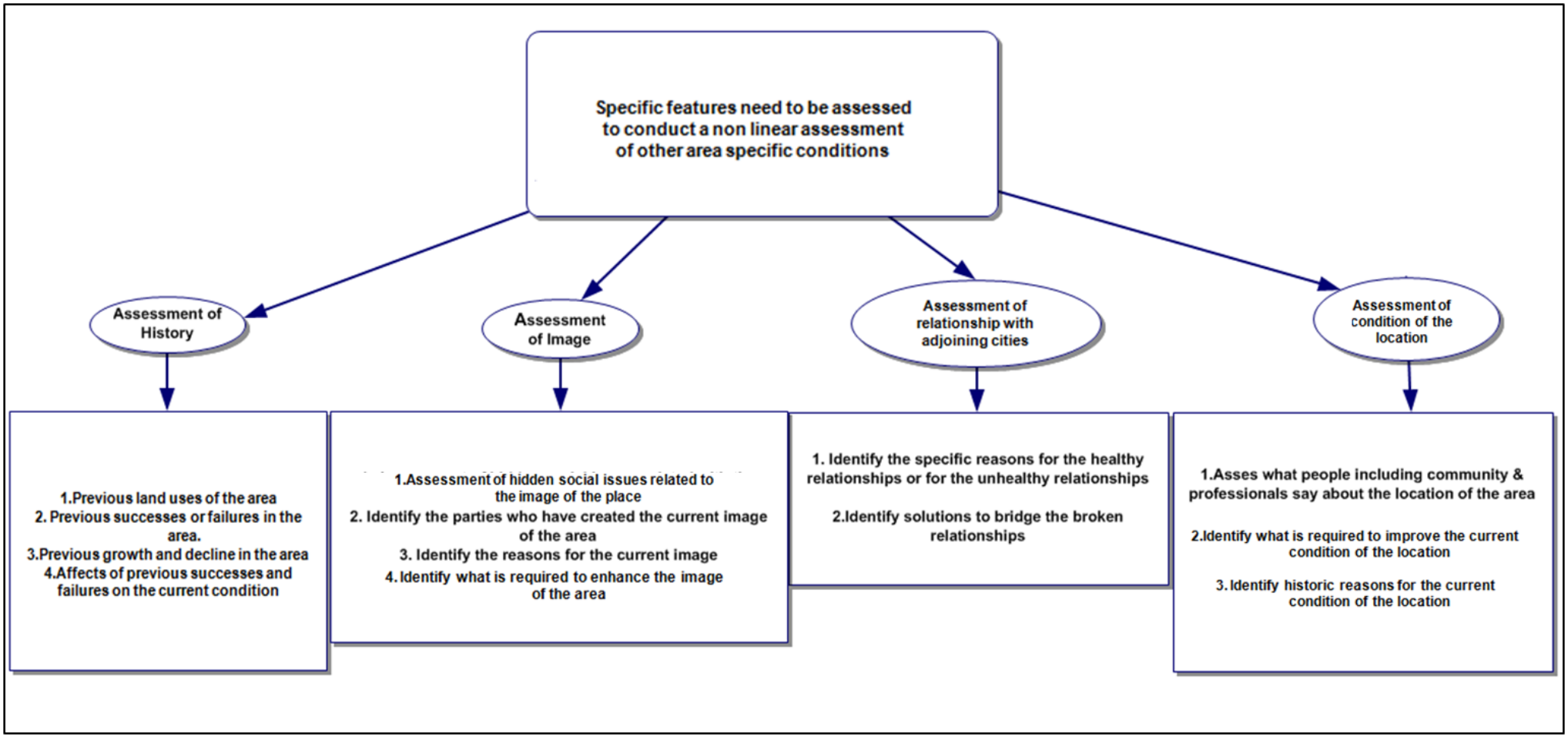
Accordingly, the researcher can conclude that these extremely specific conditions within the area could only be assessed because the researcher employed features from the regenerative design process. In a standard urban analysis, the community are not usually engaged at this stage, and therefore, there is no possible way to extract specific information about the urban environment. Therefore, the researcher further supports the notion that features from the regenerative design process should be incorporated into the potential UD process framework at the urban analysis stage; understanding specific features such as those noted above, is extremely important in order to conduct a comprehensive urban analysis. In the above section the researcher has established the importance of the KF 'non-linear assessment of other specific conditions' and these are summarised in figure 5.15 below:

Figure 5-15- Reasons to conduct 'non- linear assessment of other area specific conditions'



The following figure, 5.16, summarises the specific features should be assessed under this KF.

Figure 5-16- Summary of the features to be assessed under the KF non-linear assessment of other area specific conditions



5.4.3-COMPREHENSIVE AREA POTENTIAL IDENTIFICATION

This KF is associated with the previous three KFs, which were focused on the deep non-linear analysis of the urban environment. This KF simply means that in the urban analysis it is necessary to have a complete understanding about the potentials of the area. The previous three KFs identified the exact condition of the urban entity, the needs of the community and other area specific conditions. Accordingly, under the KFs 'non-linear deep urban analysis of the current situation' and 'non-linear assessment of other area specific conditions' the area potentials have already been discussed. Therefore, this KF can be identified as a repetitive KF. However, because the researcher could clearly find evidence which supported the establishment of this KF, the researcher decided this KF should be presented separately.

The CF 01 has stated,

> *'We are located next to the stunning Peak District, there is the potential to develop this area and we should create a link with the Peak District which will then create many socio economic opportunities for us'.*

The IV 01 has also mentioned the potential of the area, the quote derived from his statement is as follows:

> *'The area is close to the Peak District: it could be a resource for recreation, tourism, exercise, there are lots of cloughs here which can be developed as public places, furthermore the area has good transport links'.*

Thereafter, IV 02, the President of the Community Forum, stated

> *'Our unity in the community is our identity and it's our spirit. As an example a mother with two children died and we donated £2.00 from our pension and collected over £2000 to ensure that the children were clothed and their basic needs were met, so if they give us the opportunity we can help to build up our own community'.*

Also IV 02 and IV 01 remarked on the potential of the people living in the area. IV 02 stated:

> '*Lot of clever people live here, trainers from outside should come and train them so they can contribute'.*

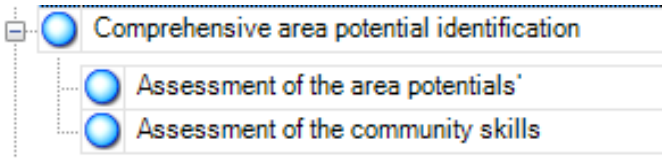
IV 01 supported that argument by stating:

> *'A few famous characters were produced from this estate. They range from the film industry, sports, music etc., but there are many unskilled people who, I wish,*

could be trained and developed, maybe there are many hidden talents in this community'.

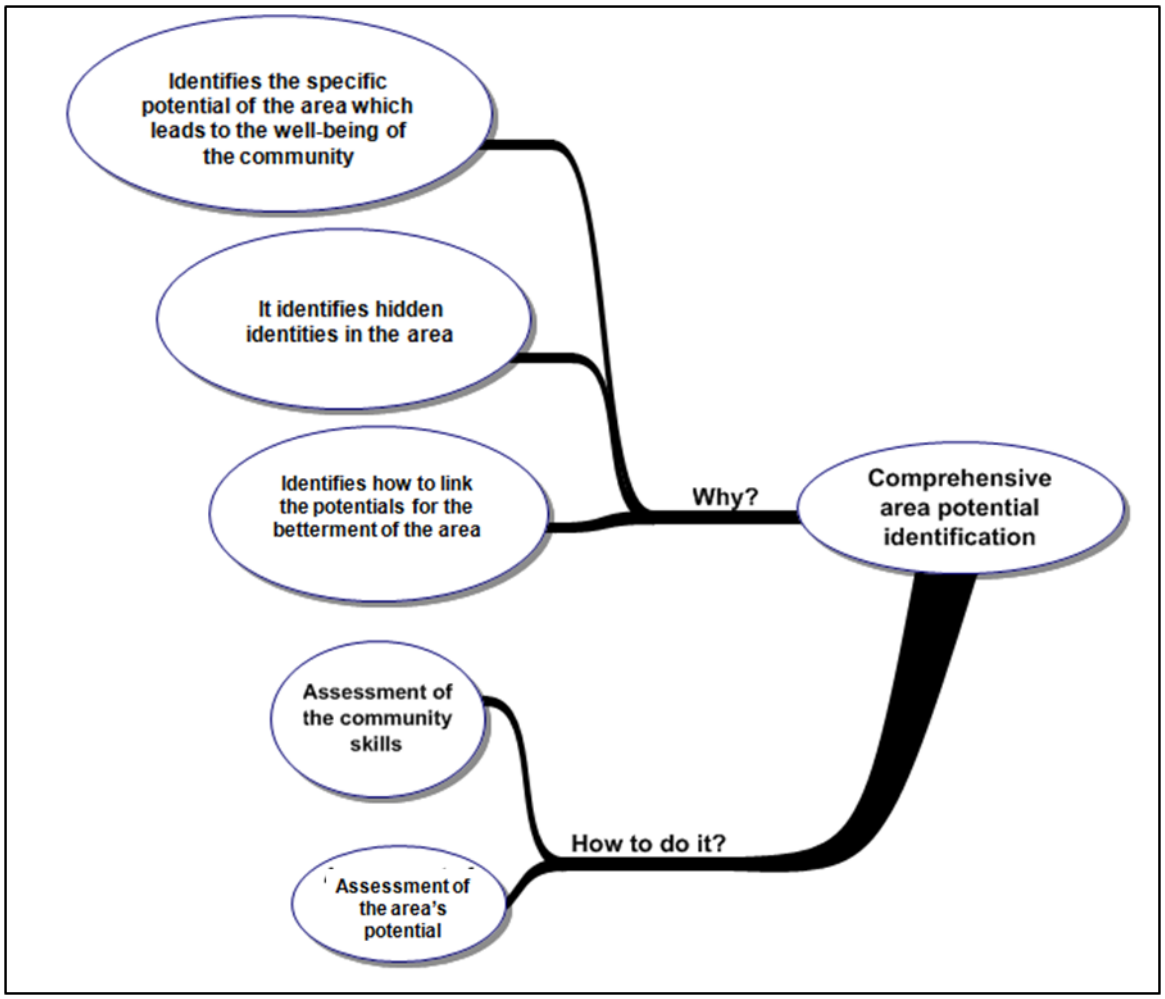
The above data established two issues which need to be assessed under KF 'comprehensive area potential identification' which are 'Assessment of the area's potential' and 'Assessment of community skills'. The node structure for this KF was developed based on this information and is presented in the following figure:

Figure 5-17-Node structure for KF 'Comprehensive area potential identification'



The deep system analysis nature of regenerative design allowed the researcher to obtain specific information about the area's potential. Identifying the area's specific potential is extremely important in order to create design solutions which are locally relevant and sustainable. Design solutions based on the area's potential prevent the application of alien solutions in the area and are widely accepted by the community. Therefore, employing features from the regenerative design processes assisted the researcher in establishing this KF and confirmed once again the positive outcomes derived by employing the regenerative design process. The following figure, 5.18 illustrates the importance of this KF and how to an area potential identification should be conducted in a new sustainable UD process framework.

Figure 5-18- Establishment of KF 'Comprehensive area potential identification' in summary

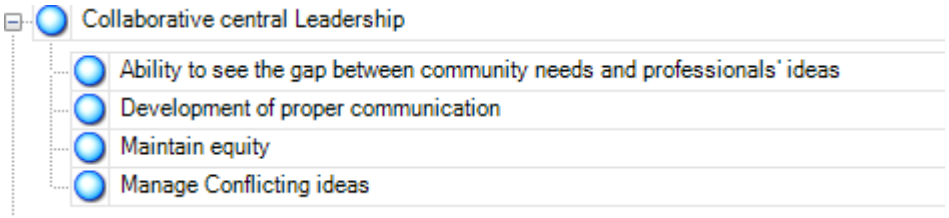


5.4.4-COLLABORATIVE CENTRAL LEADERSHIP

The establishment of this KF was quite different to that of KFs. Previously KFs were mainly established by engaging specific features from the regenerative design process but this particular KF was established by assessing the researcher's own behaviour in employing the regenerative design features in this case study project. As the researcher employed the regenerative design features in the UD process for this project, therefore, the researcher inevitably became the leader of this UD project.

The researcher has first presented the node structure derived for this KF and thereafter the establishment of the KF has been explained.

Figure 5-19-Node Structure of the KF collaborative & central leadership



According to CIV 10:

> *'I do not know why they relocated the previous district centre to a new location, we did not want to relocate it, of course, the arcade was in need of refurbishment but there was no need for it to be relocated. The new district centre is not centrally located on the estate it is located on the edge of the estate close to the motorway. I do not have a clue as to why they selected the location. They did not consult us over the location nor even ask whether we actually wanted it to be relocated'.*

CF 04 has stated:

> *'I cannot say the estate is going backward. It depends on the site, because some rough areas and sites have been developed. That is good. But they did not answer people's real problems'.*

Supporting this statement CF 06 stated:

> *'We are not happy with it. It is not what we needed. They have done whatever they wanted'.*

The above comments made by community members regarding previous development work provided insights for the researcher to think about the leadership style which should be employed in a UD project. As per the nature of regenerative design the researcher worked more collaboratively with the community, and accordingly, the researcher could gather a great deal of data and information about the urban entity and its features. The information and data derived helped the researcher to clearly identify the urban entity and helped to diagnose exactly what is required by the community. Therefore, based on the above statements and on through researcher's experience of this project the researcher was able to establish the sub node 'Ability to see the gap between community needs and professionals'

ideas'. This informs the leader's ability to see gap between community needs and professionals' ideas.

Based on the previous development work CIV 10 stated:

> *'I live in an old house which was built around 1960s. There is no problem with my house, but our houses do not match the new houses. They just did an insulation upgrade for old houses but no external refurbishment at the sole discretion of the project leader. That was not good improvement. So our houses don't look as good as other houses'.*

The CIV 08 also mentioned the same issue saying:

> *'I live in an old house. There is a clear segregation between old and new which is not good. They should refurbish old houses at least to match with new'.*

Although the comment is not about housing improvements CIV 09 stated:

> *'The new district centre is not centrally located, it is close to my house but it has created inequality for other community members because our previous centre was centrally located for all community members. The location was selected by the design team and we were not asked to select a good location. They did it as per the need of the supermarket'.*

According to CIV 09 the new district centre is not centrally located and it has created inequity, this indicates that the urban regeneration process in the previous development was not meant to maintain equity as the community has clearly stated that all the decisions were made at the discretion of the project leader. This is further proved by comments in previous sections where community mentioned that the selected location for the new district centre was not clear and was questionable. Also, the inequality of housing refurbishment, as described by CIV 10 and CIV 08, are also outcomes of the decisions taken by a repressive leader.

Based on the above findings, it indicates that in a UD process the project leader should be more collaborative and be able to manage such drawbacks. Based on this point the researcher established a sub component that commits the leader of a UD project to maintaining equity throughout the UD process.

Many sections of this chapter reveal that the district centre relocation was unsuccessful, but interviewee 05 stated:

> *'The previous district centre was in already decline. So it was good they opened a brand new one'.*

Furthermore, CIV 05 also stated:

> *'The Hub like it, it is a modern one. I use the library'.*

The above statement is an example of the conflicting opinions that were obtained when the wider community were engaged in the UD process. There was no other instance where community opinion was in conflict during the UD process employed by the researcher. Accordingly, the researcher acknowledged any conflicting opinions and the finalised urban analysis and strategies were based on the view points of the majority of the community members. The key feature derived is that there should be a central leader who has the power to initiate and execute the UD process rather than delegating power to different parties. Because the researcher centrally controlled the UD process conflicting opinions could managed without disrupting the smooth flow of the UD process; however if the researcher worked in a group where leadership powers were equally distributed then it would have been difficult to manage the flow of the UD process. Because of this problem the researcher established a sub node 'Managing conflicting ideas' to be the responsibility of the project leader but this would mean that the leader would need to be sole charge of all decisions making.

According to CIV 01:

> *'The improvements done by the previous development are good, but it was not well communicated to us. As an example; when we saw plans for new houses in phase 1 the exact height was not clear and now they have constructed the houses it has obstructed our entire view'.*

CIV 04 supported this and mentioned:

'We would like to see 3D designs of the final product, not flat plans like last time because now the new development has obstructed the entire view from our houses'.

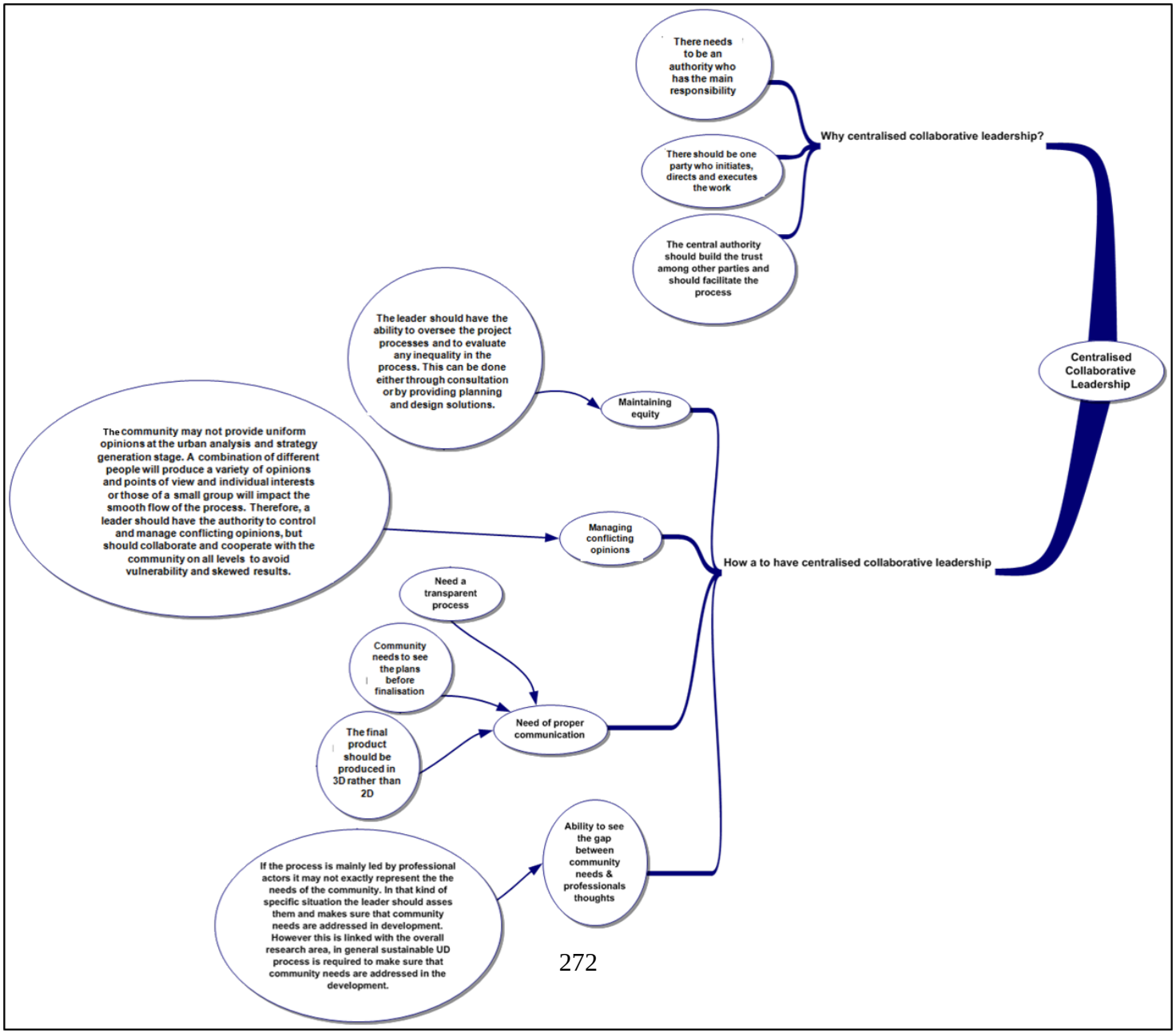
CIV 09 also has agreed with this and mentioned:

'*the new housing construction was not well communicated to us, they showed us 2D plans where we saw only the location but when it built our front view is now blocked'.*

The important feature that emerges from these comments is that in the UD process a proper communication plan should be delivered to the community and this should be the sole responsibility of the project leader. Based on this the researcher established the sub node 'Development of proper communication'.

In examining the four sub nodes established, it is clear that the central project leader needs to be both collaborative and flexible whilst also being able to make hard and rational decisions without delaying the UD process. Based on these two characteristics of leadership the researcher finalised the KF as 'Collaborative central leadership is needed in a UD process'. The figure below summarises the need for centralised collaborative leadership and how this can be maintained in the UD process. The following figure is a summary of the discussion made in this section,

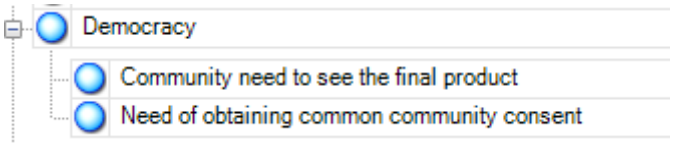
Figure 5-20-Mind map for the KF 'Centralised collaborative leadership'



5.4.5-DEMOCRACY & LEADERSHIP

Democracy is the next KF established in this case study, however, this KF is directly linked to the sub sections of the previous KF 'Centralised collaborative leadership'. Therefore, the researcher has named section 5.4.5 Democracy and Leadership. The node structure established for the KF 'Democracy' is as follows:

Figure 5-21-Node structure for KF 'Democracy'



CIV 04 has stated:

> *'In the previous development project they did not show us the final product before it was implemented, maybe they were unsure about the different viewpoints of the community, however we need to see it and get community approval, we are a strong community so we accept what the majority of the community says'.*

CIV 07 stated:

> *'It is good to create an attractive entrance area and will solve our problem of not having a children's play area, it will give an attractive image, but we should ask the other community who live in front of this space, it may disturb their privacy, getting common consent will be important'.*

The above two statements established the sub node 'Need for obtaining common community consent' in the UD process. As per the specific features of the regenerative design process to engage the wider community CIV 12, who participated in detailed design activities, stated:

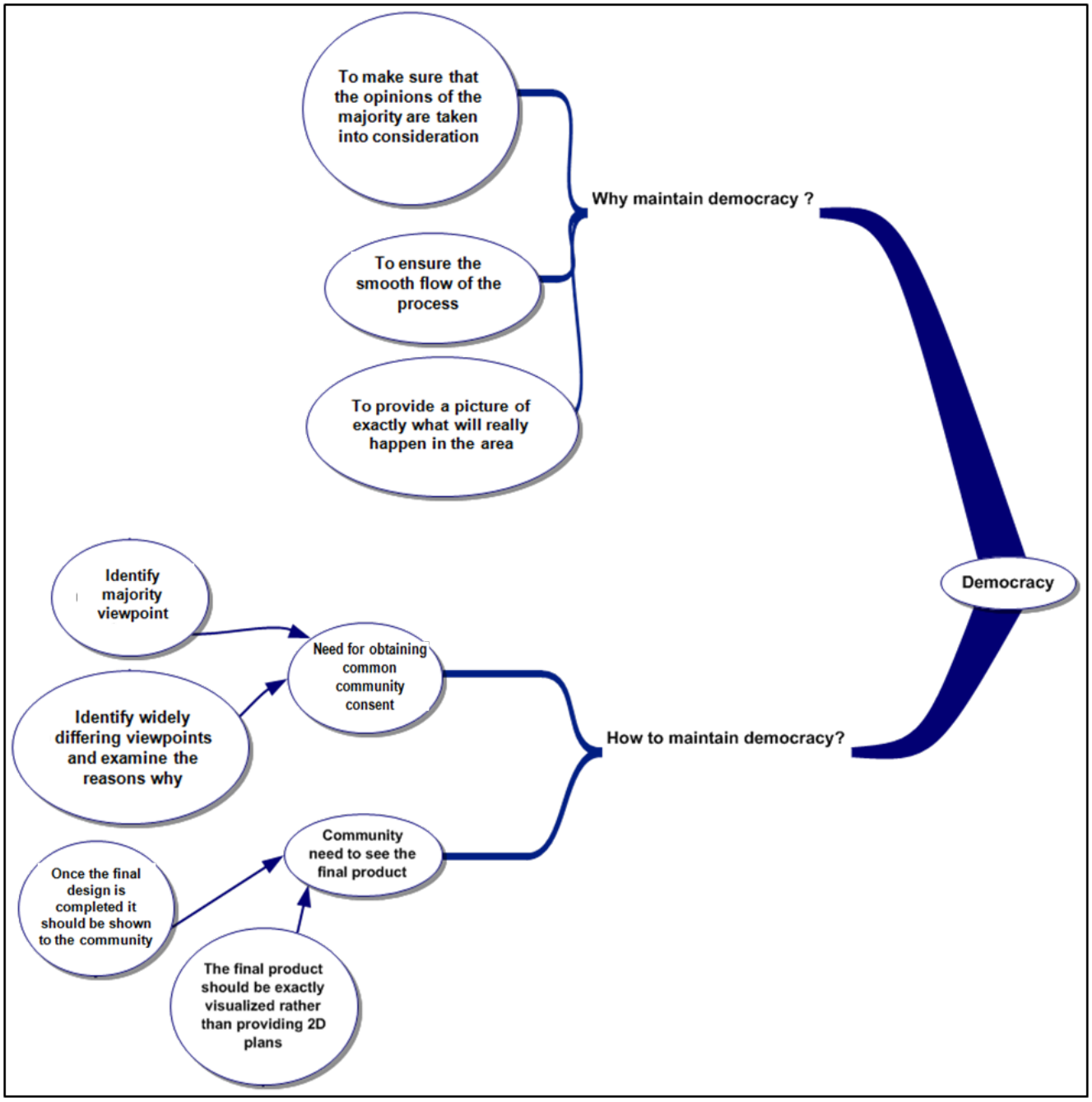
> *'it is important that you show us the final plan once it has been developed and before it has been approval, we need to see the final product before implementation then we can give the final acceptance'.*

The opinion expressed by CIV 12 was supported by CIV 19 and CIV 20 thereby establishing the sub node ‘Community need to see the final product’. The two statements made by CIV 19 and CIV 20 are as follows:

> CIV 19- ‘it *is important that you communicate the final designs before implementation, so we know what is going to be implemented’*.
>
> CIV 20- *‘we need to see the final product after you design it, we can accept it only if you have done what we asked for’*.

Both sub nodes establish the need for maintaining a democratic nature in the UD process framework especially when finalising the strategies and design solutions. Accordingly, the combination of the two sub nodes establishes the KF ‘Democracy’. However, the content in the KF has already been discussed and represented in the KF ‘Leadership’ therefore, it can be concluded that even though this KF has been separately established it has a clear link with the previous KF relating to leadership. Figure 5.22 summarises the establishment of the KF demonstrating the importance of maintaining democracy and the ways in which democracy can be maintained.

Figure 5-22- Summary of the establishment for KF 'Democracy'



5.4.6-IDENTIFICATION OF LIMITS & BOUNDARIES OF DEVELOPMENT

Identification of the limits and boundaries of the development is another specific KF that emerged from this case study. The engagement of regenerative design features provided the insights to develop up this KF.

According to the features of regenerative design the researcher employed the wider community were involved at the urban analysis stage and thereafter in strategy generation. The researcher conducted a detailed urban analysis for the whole area as the regenerative design process demands that a full system analysis be conducted. However, as per the instructions of the City Council, with whom the researcher worked in collaboration, the researcher had to limit the scope of wider community engagement in strategy generation stage to just the public realm development rather than focusing on other urban design issues.

At the community workshop CIV 16 stated,

> *'I participated in the previous workshops and we discussed matters generally, but is this only about open space developments? Are we having a separate workshop for our other needs?'*

This comment made it clear to the researcher that the community should be clearly appraised about the exact purpose of the development project in order for them to effectively involved. This conceptual thought was further strengthened by the views of CIV 13 and CIV 15 who they raised questions about their other developmental needs during a workshop to developing strategies for the public realm development. The quotes from CIV 13 and CIV 15 are as follows:

> CIV 13- *'It's really good that our public open spaces are being developed, but what about the development of a new budget supermarket can it be close to our previous district centre'.*
>
> CIV 15-*' it's really good that this project addresses the issue of open spaces, we need a secondary school as well, you can build close to the primary school or it can be close to our old school'.*

Finally, the researcher quoted a statement from the foremost interview conducted at the beginning of the process with the President of the Community Forum, where it was stated:

‘ I have to tell you that it’s really good that you consult our community regarding this, but when you talk with other community members tell them that you are consulting them about ideas for development of social places if not they may ask you different questions as we have many issues that need to be addressed’.

Based on all these findings the researcher was able to establish the need for properly informing the community about the scope of the UD project to effectively engage the community in order to avoid the community raising concerns not relevant at that particular stage of the UD project. On this basis the sub node ‘Notifying to community about the limits and boundaries of the development’ was developed.

The section above established the need for informing the community about the limits of the development work, but this section also discussed how community members informed the researcher about sections within the area which needed development.

CIV 12 mentioned that some green areas should be retained rather than those spaces being used for public realm development CIV02 stated:

‘The green open space at the entrance to the estate from the MMM (dummy name used) road should be left as it is because it a natural reserve. Therefore, in my view the main green areas should be left it gives an aesthetically better environment and also it does protect the environment’.

CIV 13 also supported this and stated:

‘We need public open spaces but one of the previous projects suggested having a public park in this area, but I think we should not touch that area because it’s close to the valley and it’s a natural reserve’.

CIV 20 also specified the green area close to MMM road (dummy name used) because it’s a natural reserve. These arguments prove that community members are capable and keen to mention areas which should not be developed and they specify the limits of the intended development by being part of it. This means the community accepted the public realm development but they wanted to speak about locations which should not be touched by the development. This enlightened the researcher about community awareness of areas they felt should be outside the limits of the development and thus the sub node ‘Community view points on limits and boundaries’.

By merging the components of two sub nodes the researcher established the KF

'Identification of limits and boundaries of development'. The following figure illustrates the node structure developed for this KF; Fig 5.24 explains the importance of this KF that has emerged from the above discussion.

Figure 5-23-Node structure for KF 'Identification of limits and boundaries of development'

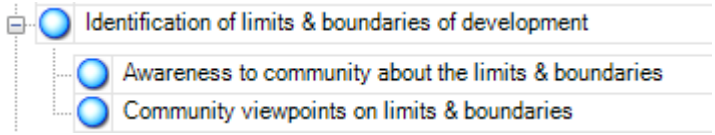
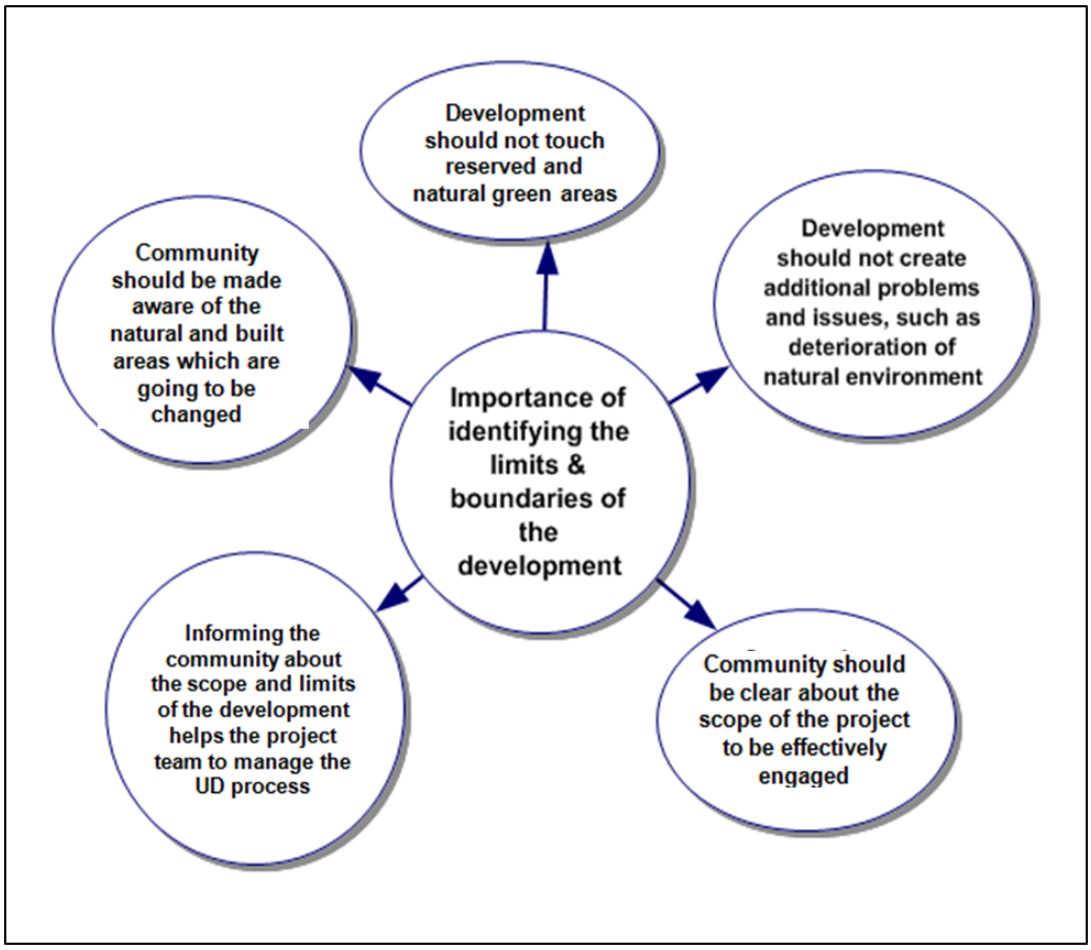


Figure 5-24 Importance of KF 'Identifying the limits and boundaries of the development'



5.4.7-COMMUNITY BASED STRATEGY GENERATION

Community Based Strategy Generation is one of the most crucial KF derived from this case study by employing the features from the regenerative design process. As per the nature of regenerative design the community is involved and plays an influential role in developing strategies. Accordingly, the researcher employed this feature in this particular UD process in order to see whether wider community engagement is a possible feature of a UD process, and if so, to establish the specific reasons for engaging the wider community in strategy generation in a new sustainable UD process.

In section of 5.4.2.2 the researcher established the KF 'Non-linear need assessment'. Whilst analysing a set of data in that section, in order to establish that particular KF, the researcher was able to identify some of the most significant community needs as a subdivision of the analysis. In summary some of the most significant needs identified by the community are as follows:

- The need for places for socialising and gathering- indoor and outdoor
- The need for local shops or budget supermarkets
- Improving the images of the area
- Safety and security issues

Accordingly, as per the features of regenerative design, the researcher employed the wider community in order to derive strategies for identified problems and issues. However, as described earlier, the strategy generation phase had to be limited to issues related to public realm development in response to the requirements defined by the local authority with whom the researcher had collaborated. Therefore, the community were informed, in advance, about the purpose of the strategy generation phase, and therefore, strategies were developed only for issues linked to public realm development. That was one of the limitations in this phase and the other limitation was that strategies could only be developed for site that had already been selected rather than allowing the community to select the most appropriate site for each purpose. In a regenerative design environment the community would not be limited to developing strategies for pre-identified sites but, instead, would be able to select sites suited

to identified issues. However, despite the two limitations the researcher was still able to maintain the critical features of regenerative design which is to allow the wider community to develop strategies for identified problems and issues.

According CIV 13:

> *'The large site close to the main road is best area to develop a play area for children. Also, this is the main entrance to the estate so we have the play area in an open public space which will give us an identity. When this kind of open space is developed it will increase the security of the area people will be using this space. Some flower pots would also be attraction on this site'.*

CIV 16 justified the strategy by stating:

> *'An open public space on the site close to the main road will be ideal for a small children's play area, this will provide an attractive entrance and will reduce our estate's bad image. It will solve out our problem of a children's play area, look good, and solve issues'.*

CIV 18 has also developed a similar theory saying:

> *'We need an entrance to be designed for the large site near to the main road; it will create an identity for our estate and may also become a children's play area. There is also a potential solution for this site; people will always gather on the site which will then increase the safety of that area.'*

In addition to engaging the above mentioned community members the researcher engaged all the other 7 community members who participated in the community consultation regarding strategy generation. The most important finding derived for this was the active participation of the community and their ability to engage in strategy generation activities and how wisely they thought about the development solutions. The strategy solution developed by CIV 17 is a good example of the ability of the community to develop strategies:

> *'We can have a public open space on the large site close to the main road. One reason is it's the main entrance to the estate so it will give an attractive image. But we should ask the other community who live in front of this space as it may disturb their privacy, getting common consent will be important.'*

If we analyse the content of these statements, all the community members have stated the specific reason for the strategy they developed. They have specified the type of issues that can be solved by the strategies they developed. For example CIV 16 mentioned;

> '*This will provide an attractive entrance image and it will reduce our estate's bad image, solve out our children's play area problem, good look, and solve issues.'*

If we look carefully at the problems identified in the urban analysis, we can understand that the community members have integrated urban issues with strategy generation; they have created strategies to address the problems and issues that have been identified. This confirms that the community can be effectively engaged in developing strategies for identified solutions.

In addition, the engagement of community in strategy generation has brought more results. CIV 11 stated:

> *'Greenery should be left on that site, we should retain it and maybe have a couple of seating arrangements to create an public open space because we do not have open spaces on this estate. Maybe we can have a little play area as well because we do not have a children's play area. But is should be a small one and should not have any buildings. The reason is we do not want to block that open space, it's aesthetically good and also we do not want an artificially created environment'.*

The above statement indicates the awareness of community members regarding those things which should not be touched when developing the sites. The community don't just develop solutions but also specify the things that should not be changed. The quote derived from CIV 13 proves:

> *'We would propose a pedestrian path in the area and a public open space, we do not have any public open space for us with a seating facility, therefore, an open space with a seating facility will be helpful, but mainly we should not remove the greenery which is already there, we just need to develop the natural environment into a public open space, we should not actually damage the natural system.'*

These finding indicated that the community was capable and ready to accept the challenge

to develop solutions for their own area; they then identified problems and developed solutions for the problem, they then used their knowledge of the locality to establish which areas should remain unchanged as part of the solutions. Based on these findings the researcher established the sub node 'Identify what is to be implemented and what is not and specific reasons why'.

Thereafter, the researcher established further sub nodes under the KF 'Community engagement for strategy generation'

As CIV 13 has stated:

> *'Mainly we need to have an entrance board then it will give a welcoming feel to the estate and it will give us an identity'.*

CIV 16 also stated they should have an entrance design to boost the identity of the area.

CIV 17 stated:

> *'The good thing is that when we have a public open space at the main entrance to the estate people from outside will remember our estate because of the public area and it will remove the estate's bad image and will help to build our own identity; people will call it the estate where that nice open space is located'.*

The above community ideas inform the researcher how conscious community members are about building a respectable image for the area and creating their own identify.

CIV 14 commented:

> *'The greenery gives a relaxing and visually good feeling. But a pedestrian pathway is needed from the main road to the side road then it will provide easy accessibility for people on the estate'.*

CIV 15 also stated:

> *'I think we can have a pathway from the main road to the entrance of the side road, there is no difficulty without at pathway, but if we have a pathway it will be a good way to create interaction between community members'.*

The above findings indicate that people were keen to provide solutions which would increase pedestrian accessibility to the area. In addition community members provided the following:

CIV 13- *'Some flower pots would also make the site attractive'.*

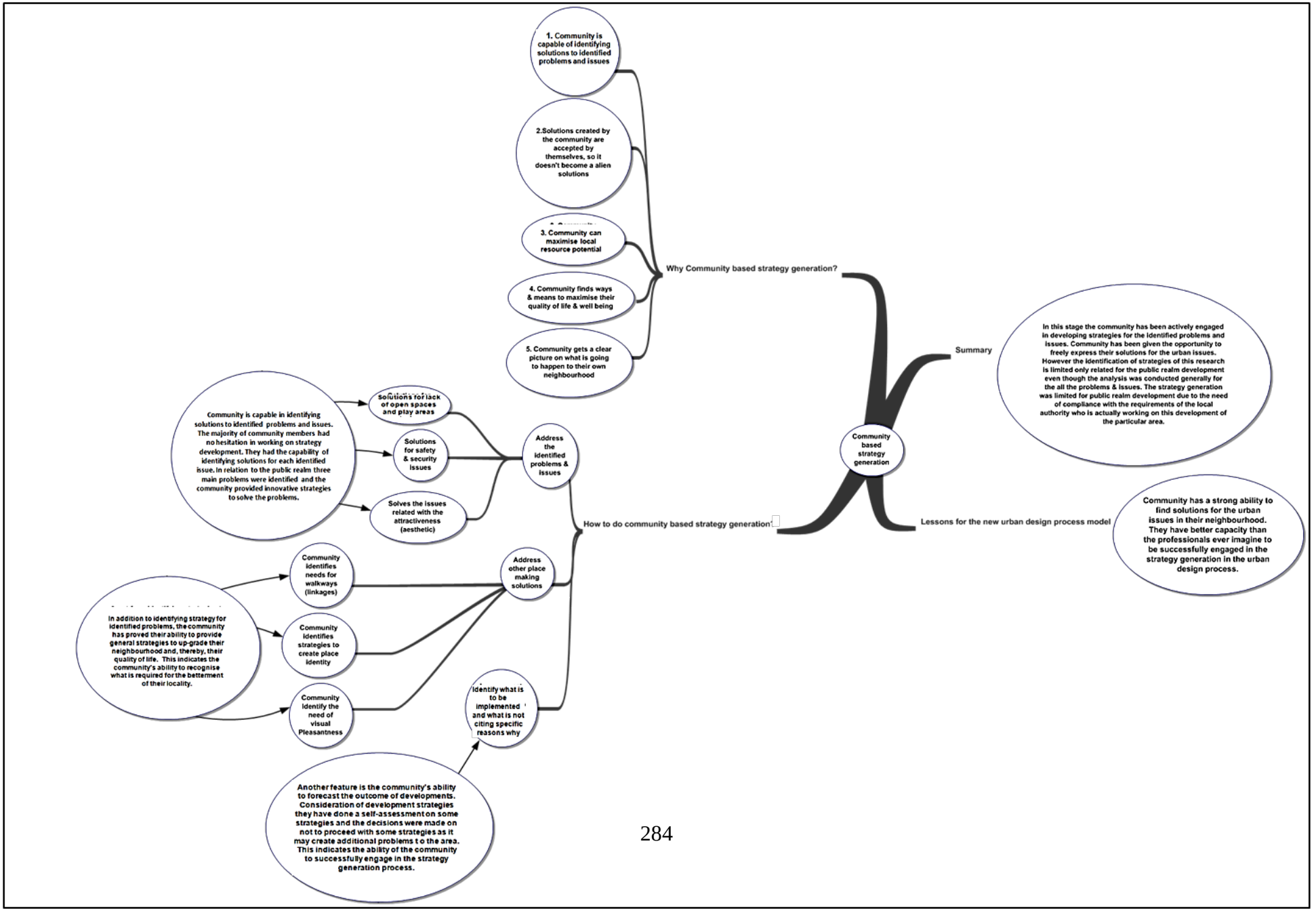
CIV 14- *'greenery with some flower arrangements will provide a relaxing and visually good feeling'*

The above ideas informed the researcher of the community's consideration for the aesthetic quality of the area when developing solutions. Altogether, these facts indicate that the community has gone beyond the stage of developing strategies for identified problems and issues and have been confident enough to address other problem areas in their strategy generation. Accordingly, based on these findings the researcher established the sub node 'Community developed strategies for other place making issues'.

On the whole, during the strategy generation stage with the community, the researcher did not experience any serious issues, such as, community members being reluctant to engage or community members who were totally out of focus with development strategies. In fact the willingness and the ability of the community in strategy generation was highlighted and clearly established by the discussions made in the above sections. As mentioned earlier, in sections of 5.4.4 and 5.4.5, the researcher was aware of a number of conflicting opinions but these did not deflect the community from engaging in strategy development; what is required is a strong leader who can manage conflict. As informed by above discussions the experience of the community in strategy generation was extremely positive and it indicates the regenerative nature of community engagement and can, therefore, be adopted in a new UD process framework. Accordingly, based on these findings, the researcher established the KF 'Community based strategy generation'. The node structure developed for this KF is presented below and figure 5.25 summarises the mind map developed for this KF.

Figure 5-25-Node structure for the KF 'Community engagement in strategy generation'

Figure 5-26-Mind map for KF 'Community based strategy generation'



5.4.8- SELECTIVE COMMUNITY BASED DESIGN DEVELOPMENT

This KF was derived by analysing contrasting data and has become one of the most important KF because it ignored the features of regenerative design. According to the regenerative design process the community plays an influential role at all stages. This fact matched perfectly with the UD process until the strategy generation stage in the main UD process. However, the finding for design development differed and the KF 'Selective community based design development' was established. The following section will discuss the establishment of this KF.

As described above, as per the nature of regenerative design, the researcher provided opportunities for community members to provide detail design solutions in the UD process. However, the researcher limited the involvement of the community in design development to two sites and the community developed most of the strategies for these two sites in the strategy generation phase. Furthermore, it is important to note that in this stage the community members engaged were required to draw the design ideas as well as verbally explain them. Therefore, some community members expressed their ideas through drawings only and some expressed their ideas through drawings and statements. Due to this the number of sources on the NVIVO node structure is cited as 14 even though only 10 members from the community were involved. For example, if a community member expressed his idea in a drawing and also as a verbal design solution the NVIVO software considered this to be two sources because the interview transcript and the drawing could only be uploaded as separate files.

The following section explains the discussion which to place to established the KF,

When the researcher provided CIV 11 with the opportunity to provide detailed design solutions the community member stated:

> *'I cannot draw or select the best place on the site to for the seating area, because I am not trained nor a professional. But I can tell you what we need in these developments rather than giving you a design drawing. We would like to have some seating areas like picnic tables etc., it would be nice if you could implement this'.*

CIV 17 had a similar idea to that of CIV 11:

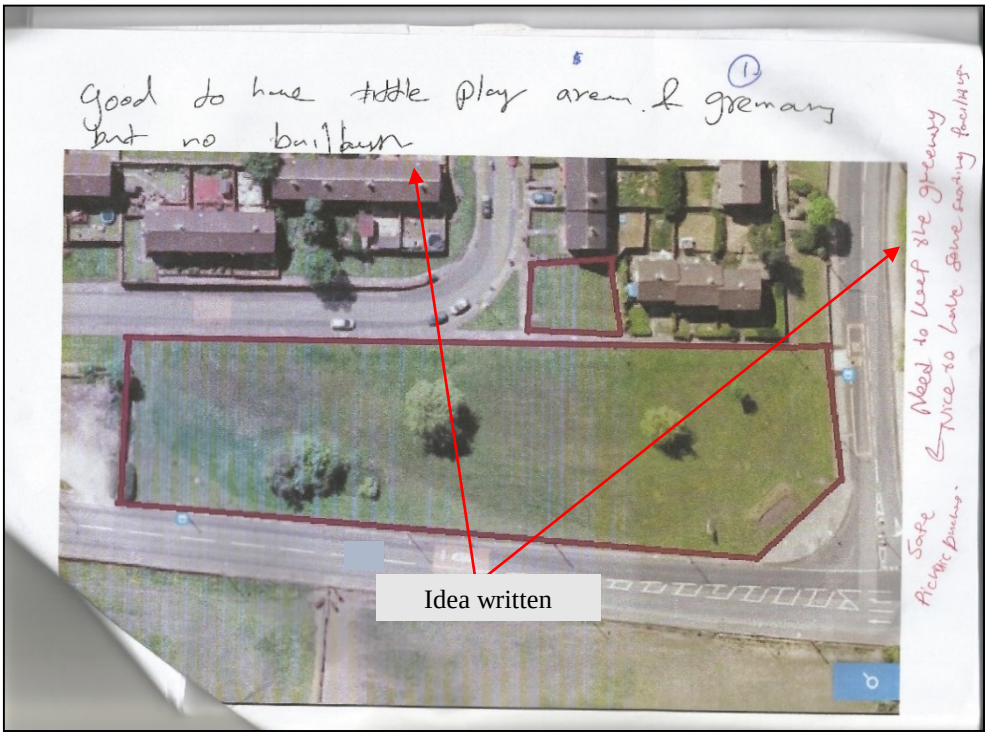
'This is what we want but you must do the design for it, we cannot do the design we are ordinary people, but you are trained for this. If you do as we ask and we like it we will accept it for the development We do not want to do the design for the identified solutions, but we do want you to listen to us and do what we need'.

The above statements by community members clarified for the researcher their interest in engaging in the detailed design process. The community members mentioned specifically that they can only provide solutions for the identified issue but were unable take part in design development. Furthermore, they stated there is no need for them to be involved as the community will accept the professionals' designs providing they have integrated community defined strategies into the design solutions. CIV 18 has also repeatedly reinforced the opinion of other community members by stating that they do not have the technical knowledge to provide detailed design solutions. CIV 18 said:

'We need an entrance designed which will create an identity for our estate; also may be a children's play area but I can't design it or tell you where it should be; you must do it as you are the people who are technically trained to do it'.

CIV 11 also mentioned that they were not able to provide detailed designs and specified that it was the work of the project team and mentioned they can only state their requirements. CIV 11 annotated a map with his ideas and this is presented below:

Figure 5-27- Drawing made by CIV 11



The text on the above drawing has stated the idea of the community member by providing detailed design solutions. As indicated by the text the community member has written the same identified strategy rather than providing a detailed design idea. This indicates the inability and unwillingness of the community member to participate in the design development.

CIV 14 had the following to say:

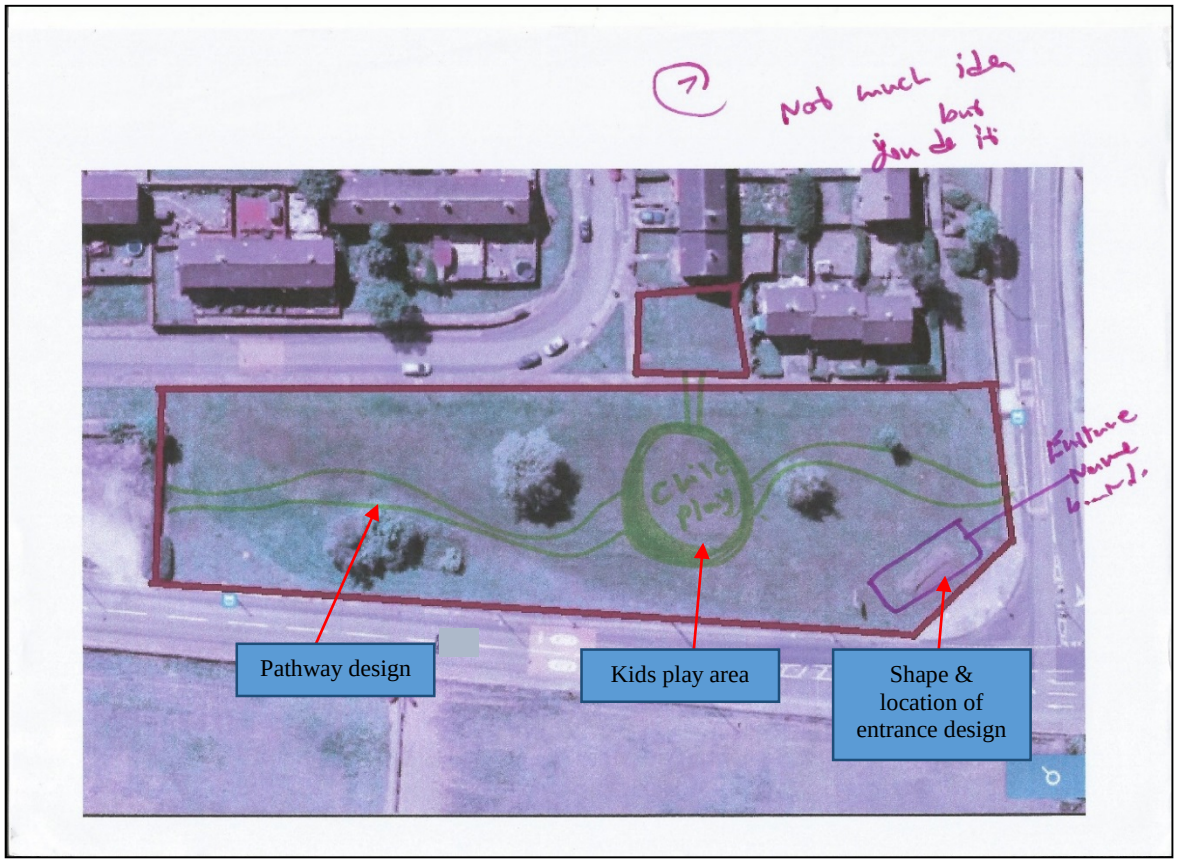
> *'Keep the green space as it is, but put on a welcoming board with the name of the area name on it, this will create a good impression for us. However, you will have to decide on the design and shape; I can tell you what we need but designing it is your job. I can tell you that we need it and why we need it'.*

The statement by CIV 14 confirms that the community is not willing to participate in detailed design work whilst also supporting the findings derived CIV 11, which state that community members can only provide the strategies for problems and issues but cannot provide detailed designs. A number of community members refused to provide design solutions as indicated in the node structure in figure 5.33; this also proves that the community is not willing to participate in design development.

Based on these finding the researcher initially established the idea of 'not involving community members at the detailed design stage' at all stages in a new UD process framework. However, on the further analysis the researcher was able to obtain further information about the community's lack of interest in detailed designing.

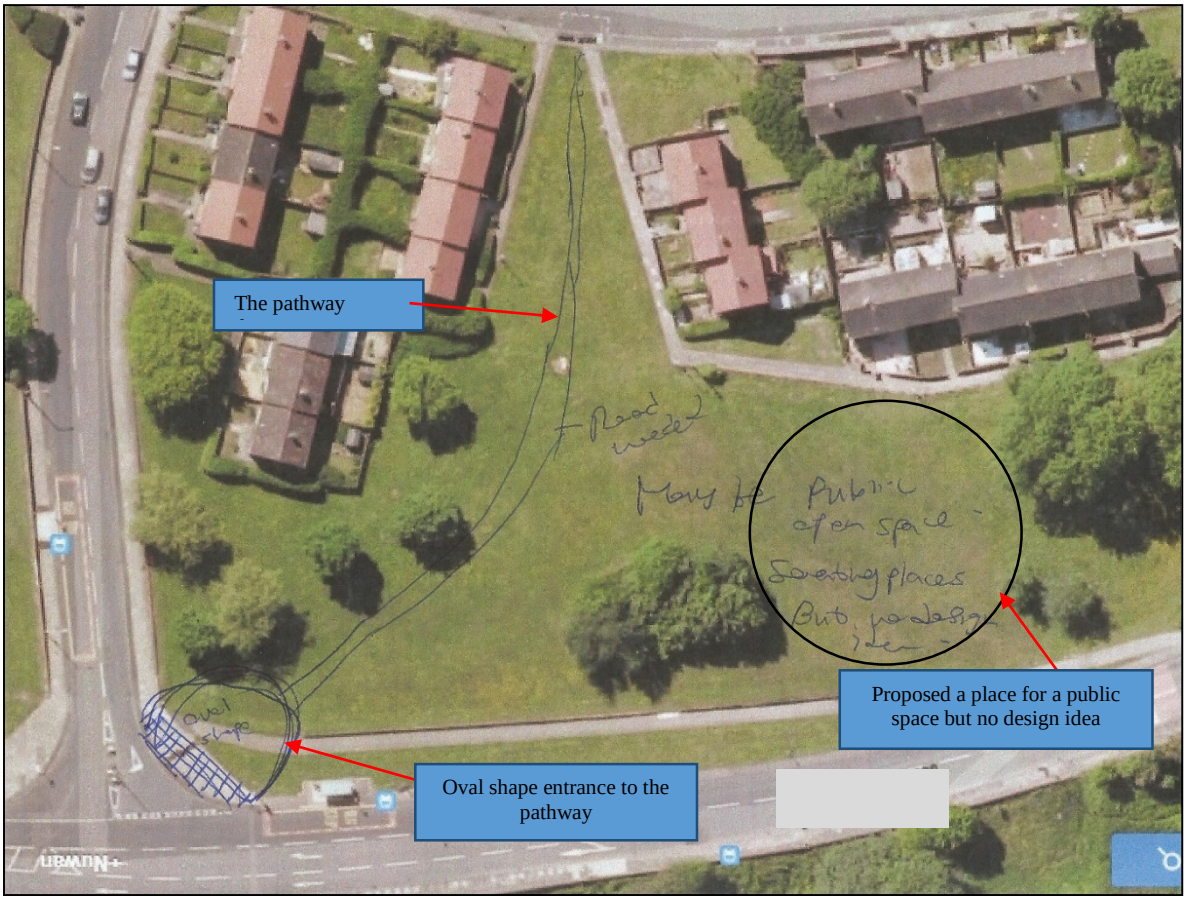
CIV 17 initially refused to provide design solutions saying that he did not have the skills to do so, however, once the researcher provided some assistance CIV17 came up with some potential design solutions. A copy of the drawing made by the CIV 17 is shown below:

Figure 5-28-Design drawing made by CIV 17



The researcher was able to show the community member how to provide detailed drawing solutions for identified strategies that could, potentially, be implemented; this encouraged the community member to draft a number of potential designs. However, this does not constitute a detailed design but could be thought of as a draft design idea from the community member. This situation was also experienced with CIV19 and a drawing completed by this community member is presented below:

Figure 5-29-Design development by CIV 19



Similar to CIV 17 & CIV 19 the CIV 20 also initially refused to provide detail design ideas but thereafter with the help of the researcher came out a draft idea of the design solution but with less success. The following is scanned drawing of the CIV 20 he has just identified to design some flower beds and have mentioned to leave the greenery as

The drawing of CIV 20 is displayed below,

Figure 5-30-Drawing of the CIV 20

However based on the above results the researcher was able to establish a sub node stated that community members may be involved in detailed designing with the help of professionals.

In summary, the researcher has established two opinions regarding community engagement in detailed designing; either, they should not be involved at the design development stage or, they can be engaged but only with professional assistance.

However, CIV 13 and CIV 16 have shown that community engagement is possible in detailed designing. Two drawings executed CIV 13 and CIV 16 are presented below:

Figure 5-32-Detailed Design drawing by CIV 13

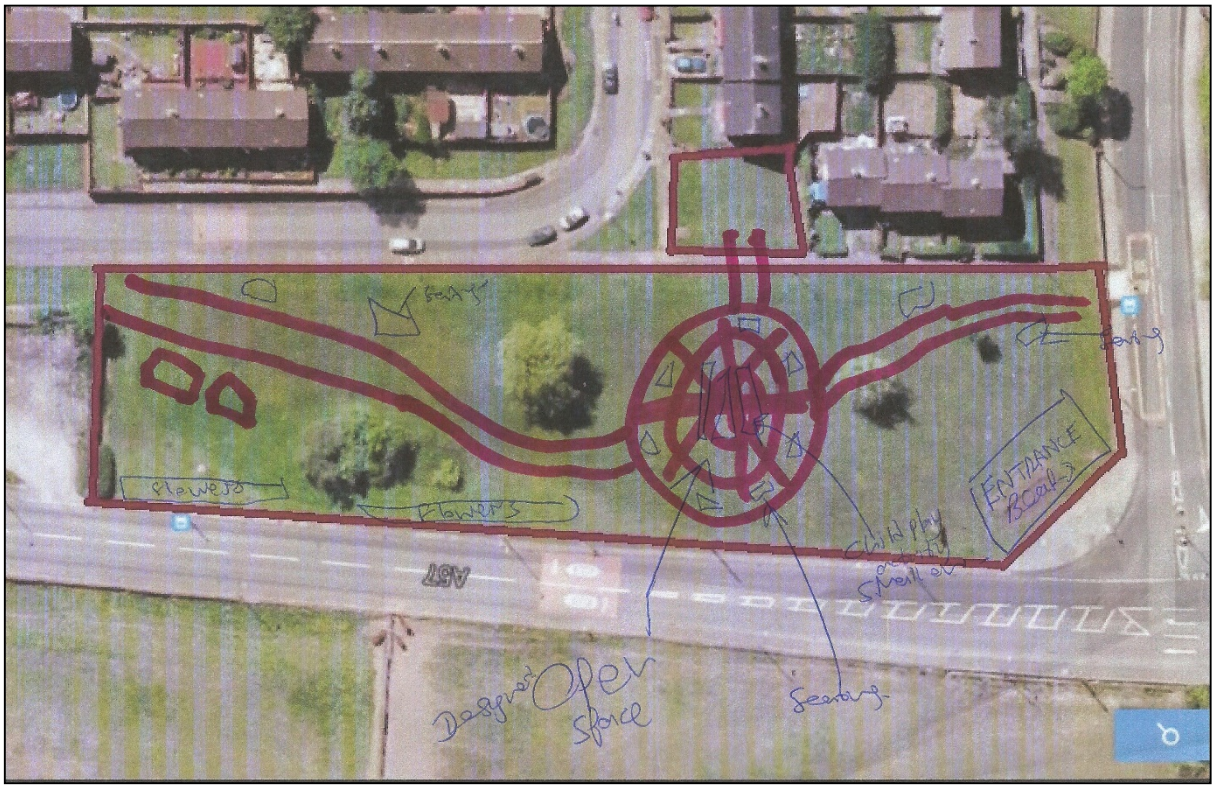
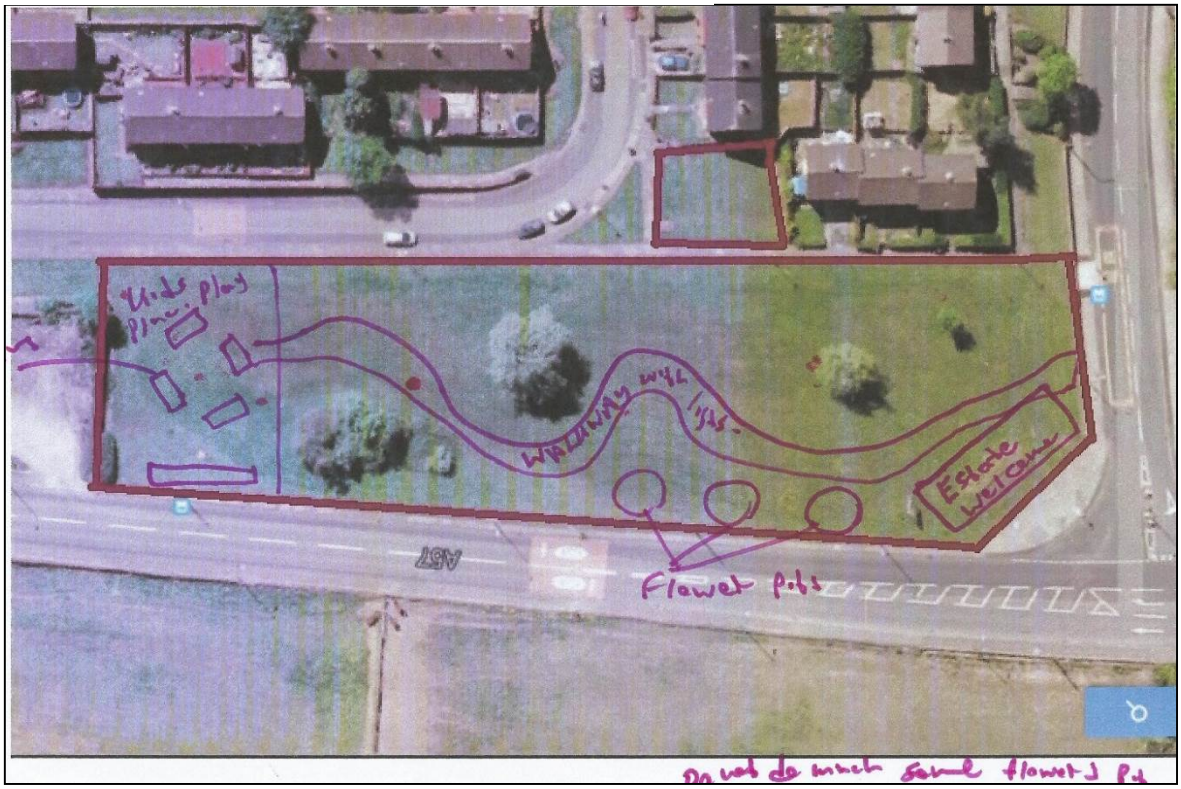


Figure 5-31- Detailed design drawing by CIV 16



Community members CIV 13and CIV 16 provided detailed drawings for potential design solutions as can be seen above. Based on these the researcher was able to establish another sub node to the effect that the community could be actively engaged in detailed designing.

On the whole there was more evidence to say that community members should not be engaged in detailed designing as indicted by the node structure in figure 5.33. However, some community members were able to create with potential design solutions and some were able to do this with the assistance of the researcher, therefore, the researcher could not totally withdraw the idea of not engaging the community in detailed designing. Accordingly, based on all the evidence the researcher established the KF 'Selective community based design development' which means that professional actors should be selective in deciding whether to engage community members in detailed designing or not in a UD process. Based on the community's actions throughout the previous stages, their level of education and collaborative nature, professional actors need to decide whether to engage the wider community in the detailed designing stage rather than generally engaging the wider community in the detailed designing in any UD process.

Another sub factor has been emerged under this KF. The sub factor has been derived from community ideas about their engagement in design development.

CIV 12 has stated:

> *'it is important that you show us the final plan once it has been developed and before it is approved, we need to see the final product before you implement it then we can give the final acceptance'.*

CIV 14 had a similar opinion to CIV 12 but it was based on experience of previous regeneration work already implemented in the area. CIV14 stated:

> *'One of the key reasons for previous failures was that they did not show us the final product before implementing it, we need to see it and get community approval. We are a strong community so we accept what the majority of the community say. Also we would like to see 3D designs of the final product not flat plans like last time they did it because now the new development obstructs the front of our houses'.*

The CIV 19 and CIV 20 also stated that it was necessary for the community to see the final product once the design development had been completed and before the plans are finalised. These ideas from the community helped to establish the sub factor ‘Role of the community in finalising solutions’. Integration of this sub factor, along with the sub factor, ‘Decide the role of the community in generating detailed designs’ created the KF ‘Selective community based design development. The following two figures describe the node structure developed for this KF and the mind map as a summary of the idea generated by the KF.

Figure 5-33-Node structure for the KF with the number of sources

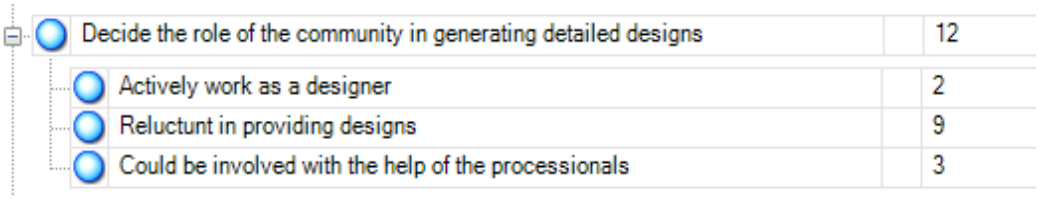
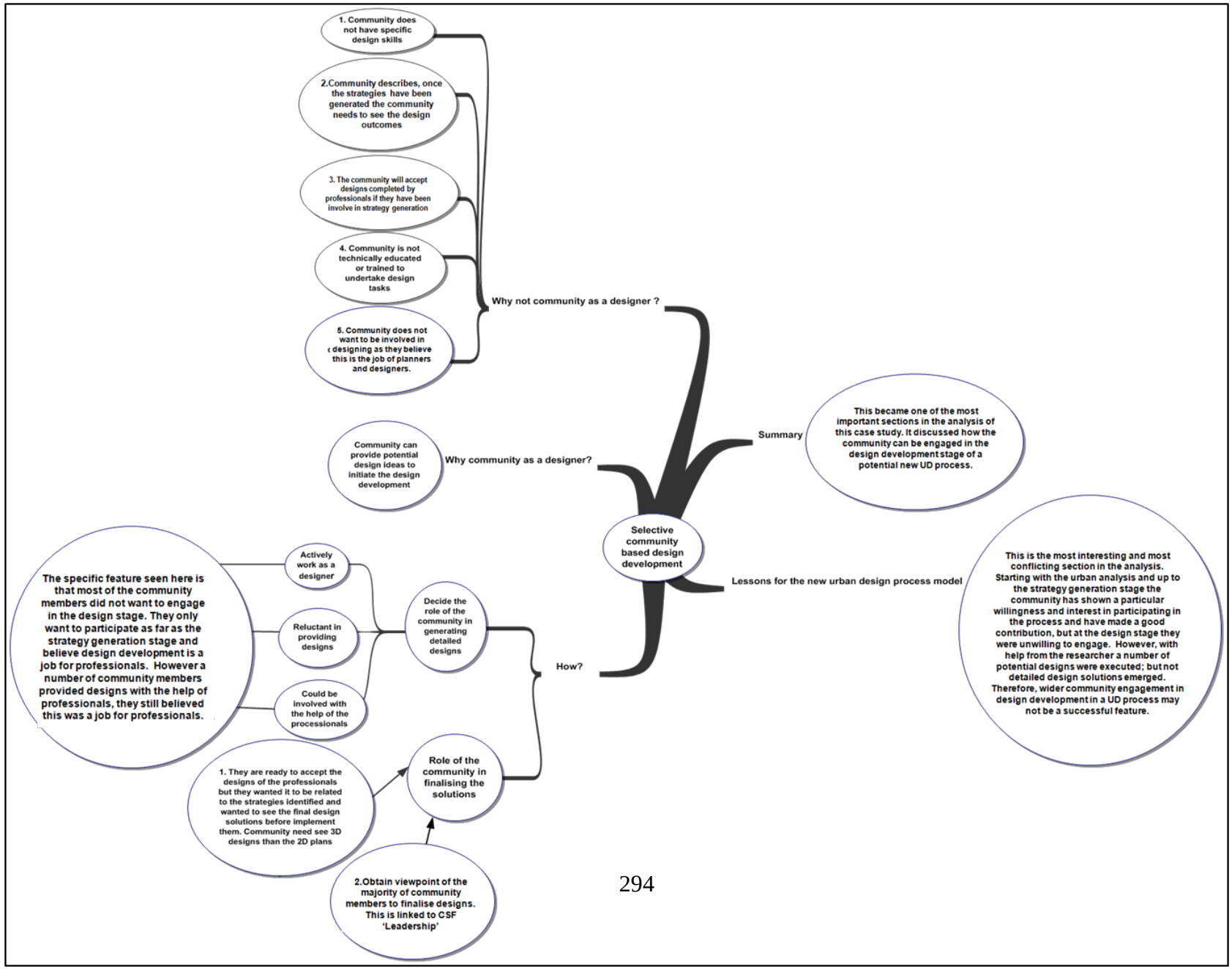


Figure 5-34- Mind map for the KF 'Selective community based design development'



5.5-ESTABLISHMENT OF COMPONENTS FROM KEY FACTORS AND ALIGNMENT WITH KEY STAGES OF UD PROCESS

In the previous case study, once the KFs had been established, the researcher established the components of the UD process combining the sub factors identified in the mind maps developed for the each KF or by extracting sub factors as components of the UD process. Similarly, in this case study the researcher has established the components by combining the sub factors from the mind maps or by taking sub factors out as a separate component of the UD process. However, the significant thing in this case study is the researcher was able to take some KFs as a whole and use them as components of the UD process. Accordingly, in sections 5.5.1 to 5.5.9 the researcher has described the establishment of components for the UD process framework under each KF derived.

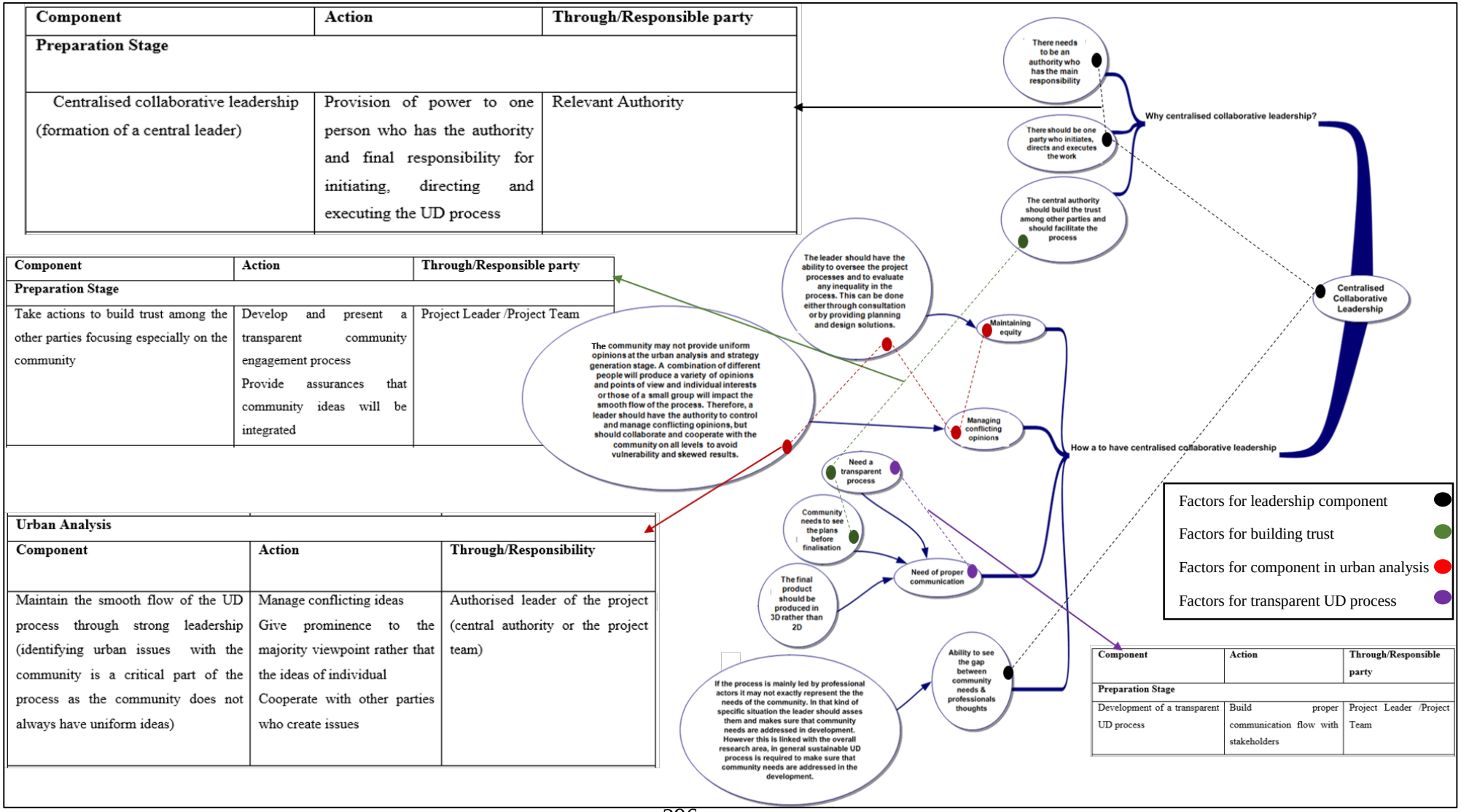
5.5.1- COMPONENTS ESTABLISHED UNDER THE KF 'CENTRALISED COLLABORATIVE LEADERSHIP'

The KF suggests that there should be a centralised collaborative leader in the UD process. Therefore, this needs to become one component in the UD process but it is necessary to see when the central collaborative leader should be nominated and why it should be done. The sub sections of the mind map developed for this KF answers these questions and the black, dotted lines in figure 5.35 briefly explain this.

In addition this KF discusses building trust among the community and development of a transparent community communication plan. These sub factors have created two components for the UD process with the required actions and the purple and green dotted lines briefly describe the establishment of the components.

Finally, the red dotted lines describe the establishment of the component of 'Maintaining the smooth flow of the UD process' by managing the conflicts which could be created in engaging the wider community in urban analysis as well as in strategy generation. Therefore, this component has been repeatedly identified in both the urban analysis stage and in the strategy generation stage.

Figure 5-35- Components established under the KF 'Centralised collaborative leadership'



5.5.2- COMPONENTS ESTABLISHED BY THE KF OF 'NON LINEAR DEEP URBAN ANALYSIS OF THE CURRENT SITUATION

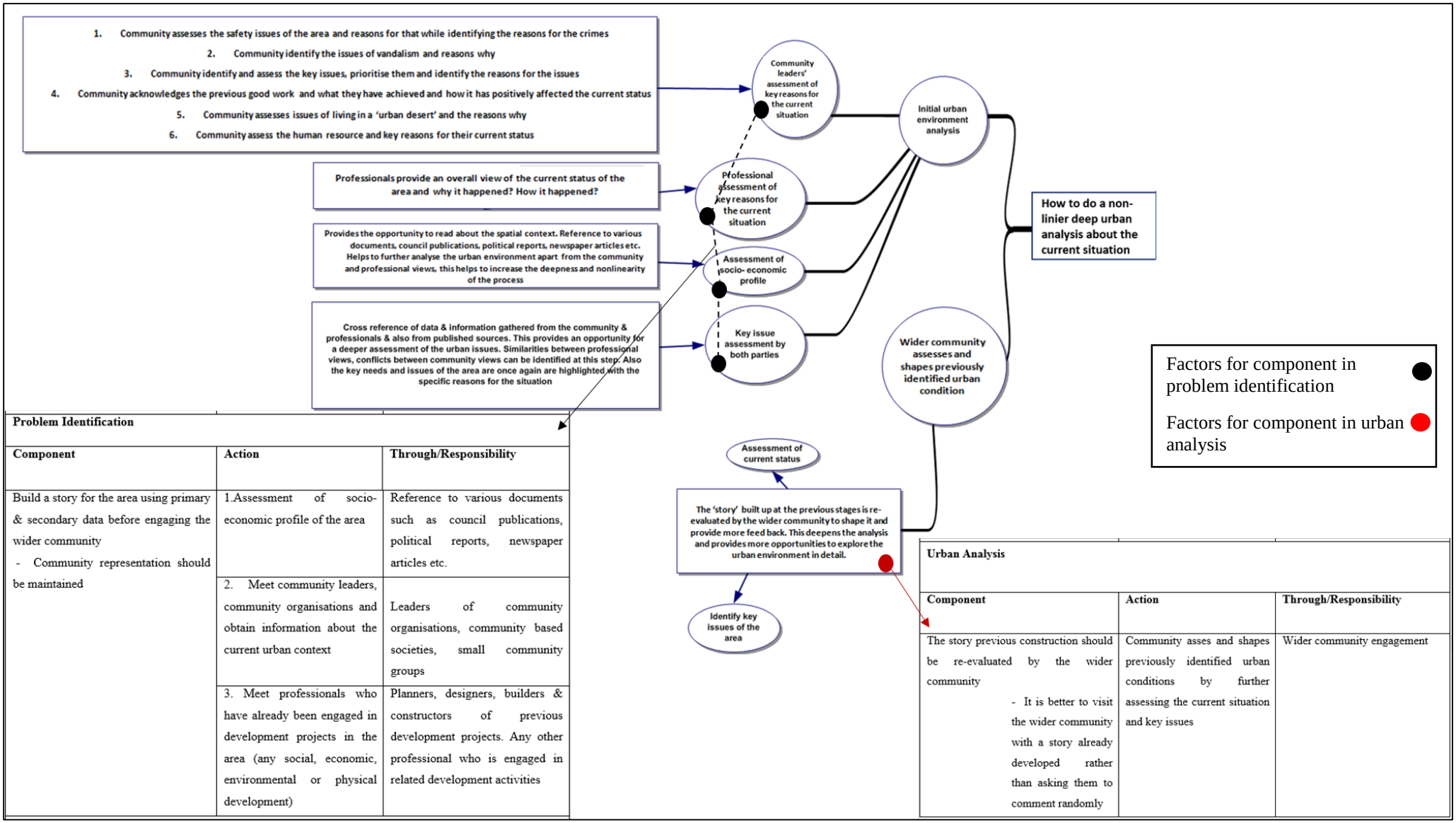
This KF established two important components for the new UD process framework. The first component established represents the problem identification stage and the second component represents the urban analysis stage. The table below explains the two components the actions that need to be taken at each stage. Figure 5.36 summarises the facts considered to establish the components.

Table 5.4- Components established under the KF 'Non-linear deep urban analysis of the current situation'

Problem Identification Build a story of the area using primary & secondary data before engaging the wider community - Community representation should be maintained	1.Assessment of socio-economic profiles of the area	Refer to various documents such as council publications, political reports, newspaper articles etc.
	2. Meet community leaders, community organisations and obtain information about the current urban context	Leaders of the community organisations, community based societies, small community groups
	3.Meet professionals who have already been engaged in development processes the area (any social, economic, environmental or physical development)	Planners, designers, builders & constructers of previous development projects, any other professionals who are engaged in development related activities

<u>Urban Analysis</u> The story create in the previous stage needs to be re-evaluated by the wider community - It is better to visit the wider community with a story already developed that they can comment on rather than them having nothing to comment on.	Community asses and shape previously identified urban conditions by further assessing the current situation and key issues	Wider community engagement

Figure 5-36- Establishment of components under the KF 'Non- linear deep urban analysis of the current situation



Problem Identification		
Component	**Action**	**Through/Responsibility**
Build a story for the area using primary & secondary data before engaging the wider community - Community representation should be maintained	1.Assessment of socio-economic profile of the area	Reference to various documents such as council publications, political reports, newspaper articles etc.
	2. Meet community leaders, community organisations and obtain information about the current urban context	Leaders of community organisations, community based societies, small community groups
	3. Meet professionals who have already been engaged in development projects in the area (any social, economic, environmental or physical development)	Planners, designers, builders & constructors of previous development projects. Any other professional who is engaged in related development activities

Urban Analysis		
Component	**Action**	**Through/Responsibility**
The story previous construction should be re-evaluated by the wider community - It is better to visit the wider community with a story already developed rather than asking them to comment randomly	Community asses and shapes previously identified urban conditions by further assessing the current situation and key issues	Wider community engagement

5.5.3- COMPONENTS ESTABLISHED BY THE KF NON-LINEAR DEEP URBAN ANALYSIS OF THE CURRENT NEEDS

The KF 'Non-linear deep urban analysis of the current needs' stands alone as a component in the UD process. This KF directly informs the actions to be taken to achieve this component and the parties responsible for those actions. Accordingly, the researcher did not have to build components by combining the sub facts for this KF. Refer figures 5.10, 5.12 and 5.13 to locate the establishment of the KF.

The following table explains the KF as a component with the actions required to achieve this component and the parties responsible for those actions.

Table 5.5- Components established by the KF 'Non-linear deep urban analysis of the current needs'

Component	**Actions**	**Through/Responsibility**
Non-linear deep urban analysis of community needs	1. Obtain initial viewpoint on community needs indicating: - Needs for different age levels - social, economic and environmental needs - Community prioritise their key needs and why they are crucial - issues associated with the current facilities, with the previous developments, and the historical position of the current needs	Community leaders, community based organisations

	2. Wider community involvement to understand and assess conflicting needs and to confirm previously identified needs	Wider community involvement

However, even though this has been identified as a separate component, this component can be achieved by employing the actions of the component detailed in section 5.5.2. Section 5.5.2 described the non-linear assessment of the current situation and this component describes the non-linear assessment of the current needs. It is good idea to assess these components separately but in a more viable UD process framework both of these components are represented together rather than being separately identified. However, the researcher will discuss merging the two components in the next chapter in the cross case analysis which led to the construction of the conceptual UD process framework.

5.5.4- COMPONENTS ESTABLISHED BY THE KF 'DEEP ASSESSMENT OF PREVIOUS WORK SUCCESSES OR FAILURES

Similar to section 5.5.3, this KF also stands alone as component in the UD process. The sub-factors established and described under the KF have become actions for the component whilst describing which party is responsible for undertaking the required actions. The following table describes the KF as a component of the UD process with the required actions. The information required to establish the component were derived from the information revealed in the development of the KF 'Deep assessment of previous work successes or failures' which were presented in figures 5.4 and 5.5 in section 5.4.1.

Table 5.6-Components established by the KF 'Deep assessment of previous work successes or failures'

Component	**Actions**	**Through/Responsibility**
Urban Analysis	Assess overall satisfaction of the community regarding previous developments and	Community Involvement

Deep assessment of previous work successes or failures ▪ To see how well the changes have been adopted by the community ▪ To see whether the new development has caused additional issues in the area ▪ To review the terms initially agreed that have been met by other parties ▪ To avoid the drawbacks that happened in the previous development ▪ To identify the operational issues of the developed area	the reasons for their satisfaction or dissatisfaction	
	Study previous plans & background, especially focusing on identifying the specific reasons for the previous development	Project team members
	Document stories about previous work to identify what is revealed by secondary data sources	Project team members
	Assess the implemented development against the previous master plan	Community views & project team members
	Professional view point on previous work	Planners, designers, contractors, etc. who were involved in the previous development works

5.5.5- COMPONENTS ESTABLISHED BY THE KF 'NON LINEAR ASSESSMENT OF OTHER AREA SPECIFIC CONDITIONS

Similar to sections 5.5.3 and 5.5.4 this KF stands alone as a more specific component in the UD process. Accordingly, this component has informed the issues to be assessed in the urban analysis rather than providing a different step to be undertaken in the UD process. However, the sub factors identified in this KF have become the actions to achieve the component non-linear assessment of other area specific conditions. As noted earlier this component is not exactly a step to be considered in the urban analysis but it is something which is extremely important and should be considered under the component identified in section 5.5.3. Figure

5.16 in section 5.4.2.3 illustrates the mind map used to establish the component and its actions. The following table presents the component, with its actions, and the authority responsible for those actions.

Table 5.7- Components established by the KF 'Non-linear assessment of other area specific conditions.

Component	**Actions**	**Through/Responsibility**
Urban Analysis Assessment of the other area specific conditions	1. Assessment of history - Previous land uses in the area - Previous successes or failures in the area - decline and growth of the area - Effect of previous successes and failures on the current conditions in the area	Wider community & planners, designers, builders & constructors of previous development projects. Any other professional who is engaged in development related activities
	2. Assessment of image - Assessment of hidden social issues related to the image of the area - Identify the parties who have created the current image of the area - Identify the reasons for the current image - Identify what is required to boost the image of the area	Wider community & planners, designers, builders & constructors of previous development projects. Any other professional who is engaged in related development activities
	3. Assessment of the relationship with adjoining area - Identify the relationships with the adjoining neighbourhoods - Identify how to maintain and strengthen current	Wider community & planners, designers, builders & constructors of previous development projects Any other professional who is engaged in related development activities

	relationships and identify potential for mutual benefits	
	4. Assessment of the locational condition -Assess what people, including community & professions (who have any relationship with the development), say about the location of the area - Identify what is required to improve the location - Identify the historic reasons for the current locational condition	Wider community & planners, designers, builders & constructors of previous development projects. Any other professional who is engaged in related development activities

5.5.6- COMPONENTS ESTABLISHED BY THE KF 'IDENTIFICATION OF LIMITS & BOUNDARIES OF DEVELOPMENT'

Like many KFs in this case study this KF was also derived as a direct component in the UD process. The table below illustrated the component established, their actions and also who would be responsible for those actions. Refer to figure 5.24 in section of 5.4.6 for the establishment of the KF.

Table 5.8- Components for the KF 'Identification of limits & boundaries of development'

Component	**Actions**	**Through/ Responsibility**
Development of solutions within the identified limits and boundaries of the development	Make the community aware of the limits & boundaries of the intended development project	Project team/project leader
	Get community view point regarding limits & boundaries	Wider community

5.5.7- COMPONENTS ESTABLISHED BY THE KF OF 'COMMUNITY BASED STRATEGY GENERATION'

The KF 'Community based strategy generation' led to the establishment of three very important components for the UD process framework. The KF established in section 5.4.7 informs the appropriateness of using the wider community at the strategy generation stage and these components describe actions to be taken in community based strategy generation and what is required to complete each identified component. Figure 5.37 illustrates how the components were established for the KF and the following table presents the components identified under this KF.

Table 5.9-Components established by the KF 'Community based strategy generation'

Component	**Actions**	**Responsibility/ Through**
<u>Vision, mission & strategy generation</u> Provide the community with the opportunity to develop potential solutions for the identified problems & issues	Link the urban analysis problem identification with the strategy generation phase Each identified problem or issue to be discussed regarding strategy generation	Wider community engagement
Do not limit the community engagement to strategy generation for identified issues	Allow the community to find ways & means to maximise their quality of life (allow them to develop general strategies for the area) Allow the community opportunities to develop new area strategies using local resources	Wider community engagement
Forecast the outcomes of the intended development proposals	Provide the community with the opportunity to undertake a self-assessment on strategies they have developed and allow them to take decisions on which strategies should be acted upon and which should be discarded.	Wider community engagement

5.5.8- COMPONENTS ESTABLISHED BY THE KF 'SELECTIVE COMMUNITY BASED DESIGN DEVELOPMENT'

KF 'Selective community based design development' led to the establishment of two important components for the UD process framework. Figure 5.38 illustrates the establishment of components for the KF and the table 5.10 describes the components derived from this KF and their actions.

Table 5.10- Components established by the KF 'Selective community based design development'

Component	**Actions**	**Through/Responsibility**
Design Development Give the project team the key responsibility for producing detailed designs	Identify whether the community is willing to participate in the detailed design process, if they are, provide them with professional help to enable them participate in the process; the project team should take the lead If they are reluctant to engage in the detailed design process allow the professionals to carry out the process (but subject to community seeing the final product)	Key responsibility project team members
Community needs to see the final product before proceed with the legal approval process for the plans & designs	The community should be able to exactly visualise the final product, going beyond 2D plans and using 3D designs of the area Obtain the majority view point for the final design Identify any extreme view points and assess the reasons for them	Project team to the community

Figure 5-37-Establishment of components for the KF 'Community based strategy generation'

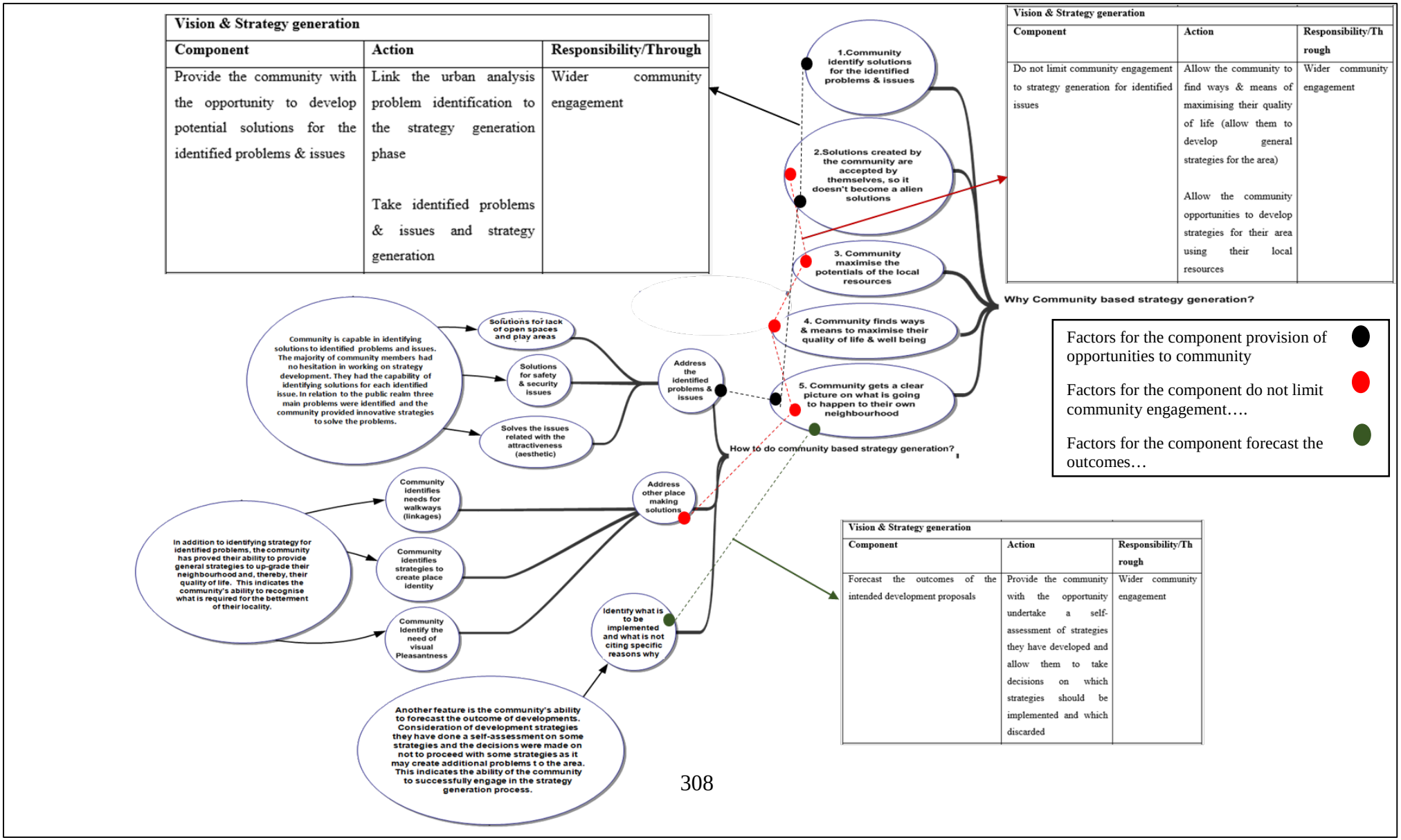
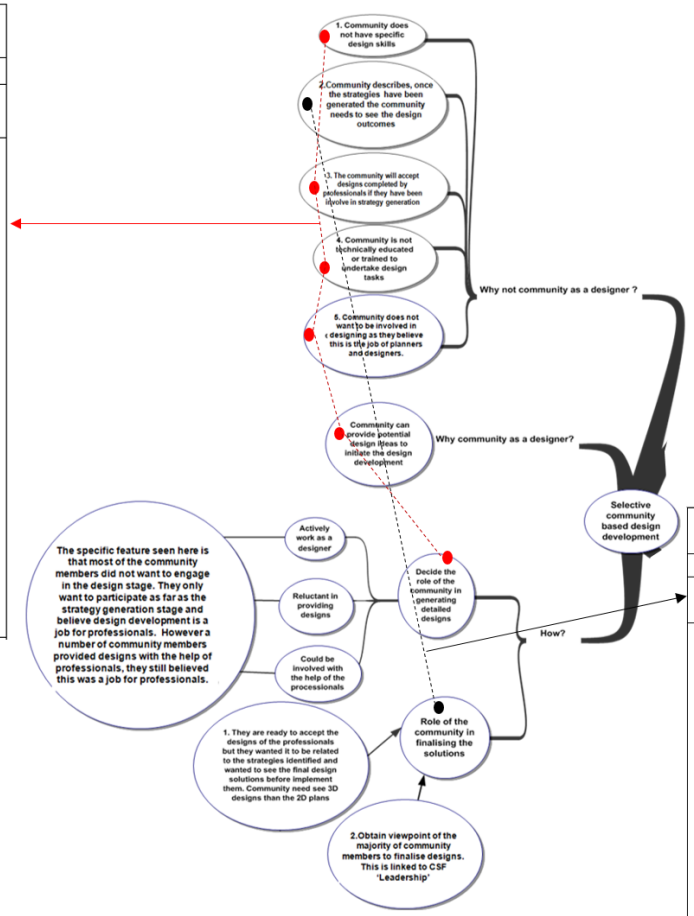


Figure 5-38- Establishment of components for the KF 'selective community based design development'

Design Development		
Component	**Action**	**Responsibility/Th rough**
Give the project team the key responsibility of providing detailed designs	Identify whether the community is willing to participate in the detailed designing process, if they are, provide professional help to the community to allow them to participate in the process; the project team should take the lead on this If they are reluctant engage in the detailed designing process allow the professionals to proceed (subject to community seeing the final product)	Key responsibility Project team members



Factors for the component give the project team the key…..

Factors for the component community needs to see the final…..

Design Development		
Component	**Action**	**Responsibility/Th rough**
Community needs to see the final product before proceeding with the legal approval process for the plans & designs	The community should be able to exactly visualise the final product, going beyond the 2D plans e.g.- 3D design of the area Get the majority view point for the final design Identify differing extreme viewpoints & reassess the reasons for them	Project team to the community

5.5.9- KF COMPONENTS NOT DIRECTLY ESTABLISHED FOR THE UD PROCESS FRAMEWORK

The KFs ‘Democracy’ and ‘Comprehensive area potential identification’ were not directly established by the researcher for the development of the components for the UD process framework. The specific reason for this is that many of the features in the two KFs were represented in components established in sections 5.5.1, 5.5.2, 5.5.5 and 5.5.8. For example the KF ‘Democracy’ describes obtaining the majority viewpoint for the UD process than relying on individual preferences; this was represented in the components established in the KF ‘Leadership’ as well as in the KF ’Selective community based design development’.

5.5.10- UD PROCESS FRAMEWORK ESTABLISHED FROM THE CASE STUDY 02

Section 5.5.1 to 5.5.9 presented a detailed discussion regarding the establishment of components for the UD process framework derived from Case Study 02. This section puts all the components together, in the correct order, for the development of the UD process framework from the case study 02. Accordingly, figure 5.39 to 5.43 presents the developed initial UD process framework under each stage of the UD process.

Figure 5-39-Preparation stage, initial framework from case study 02

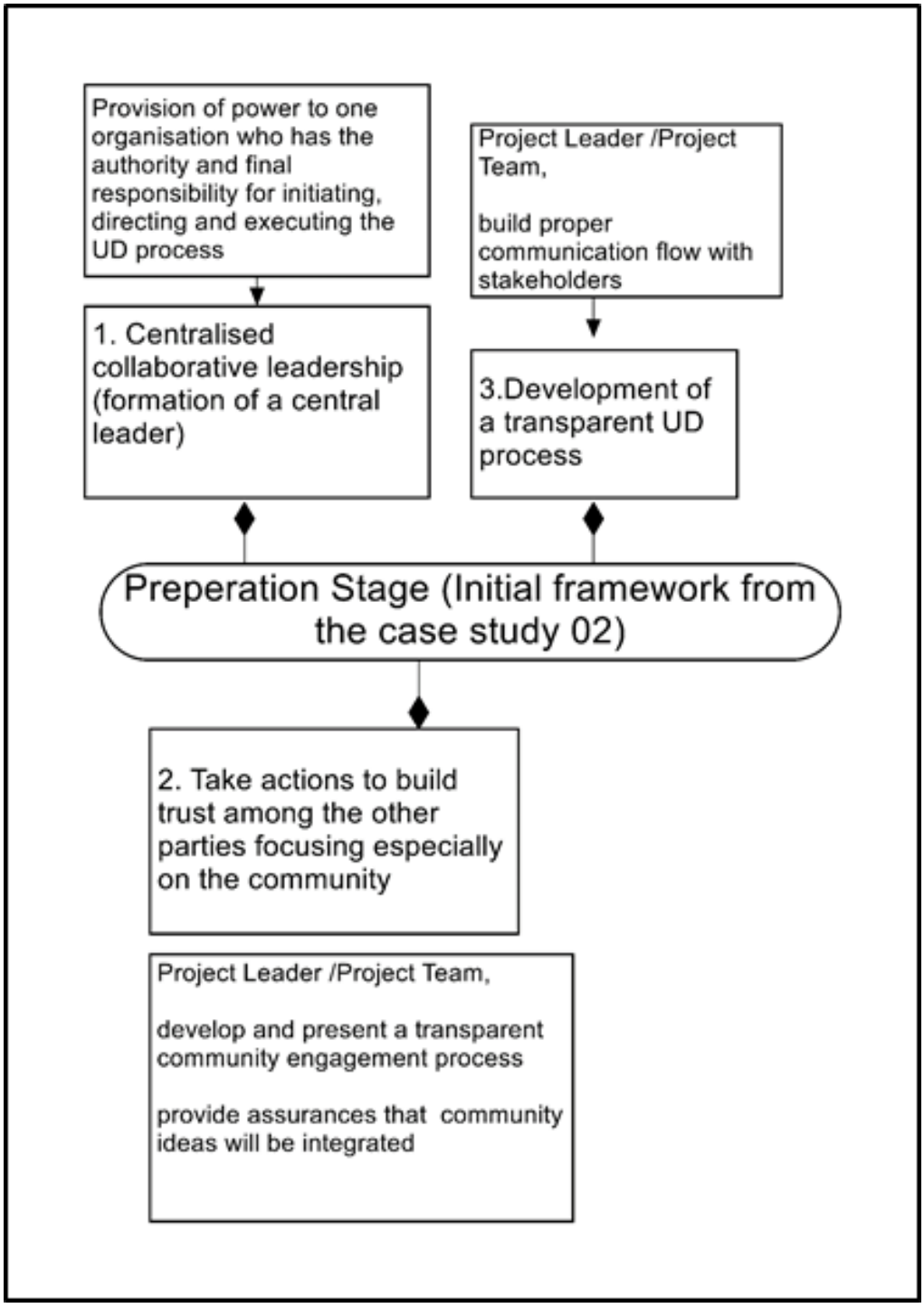


Figure 5-40-Problem Identification stage, initial framework from case study 02

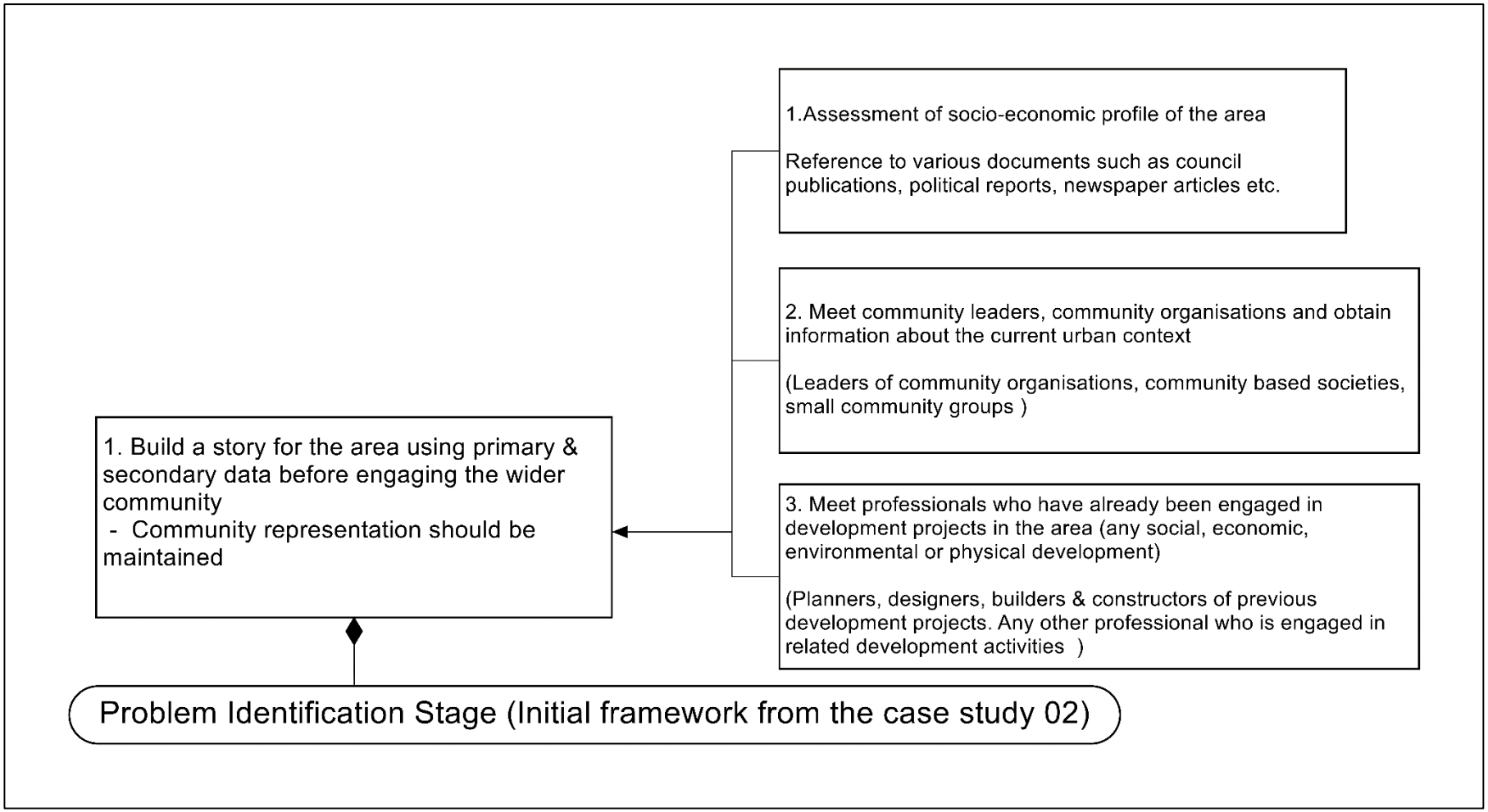


Figure 5-41-Urban Analysis, initial framework from the case study 02

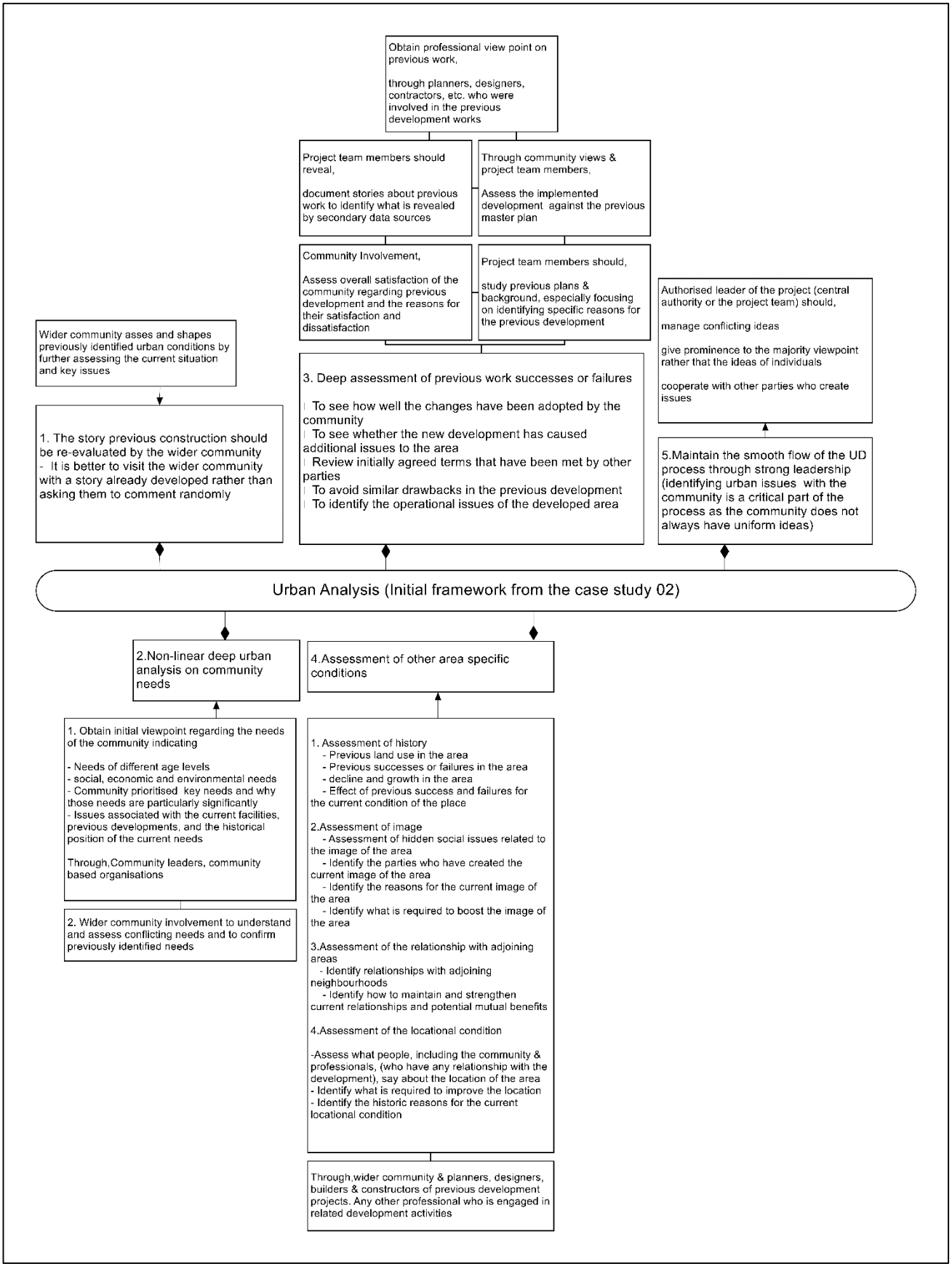


Figure 5-42-Vision and strategy generation, initial framework, case 02

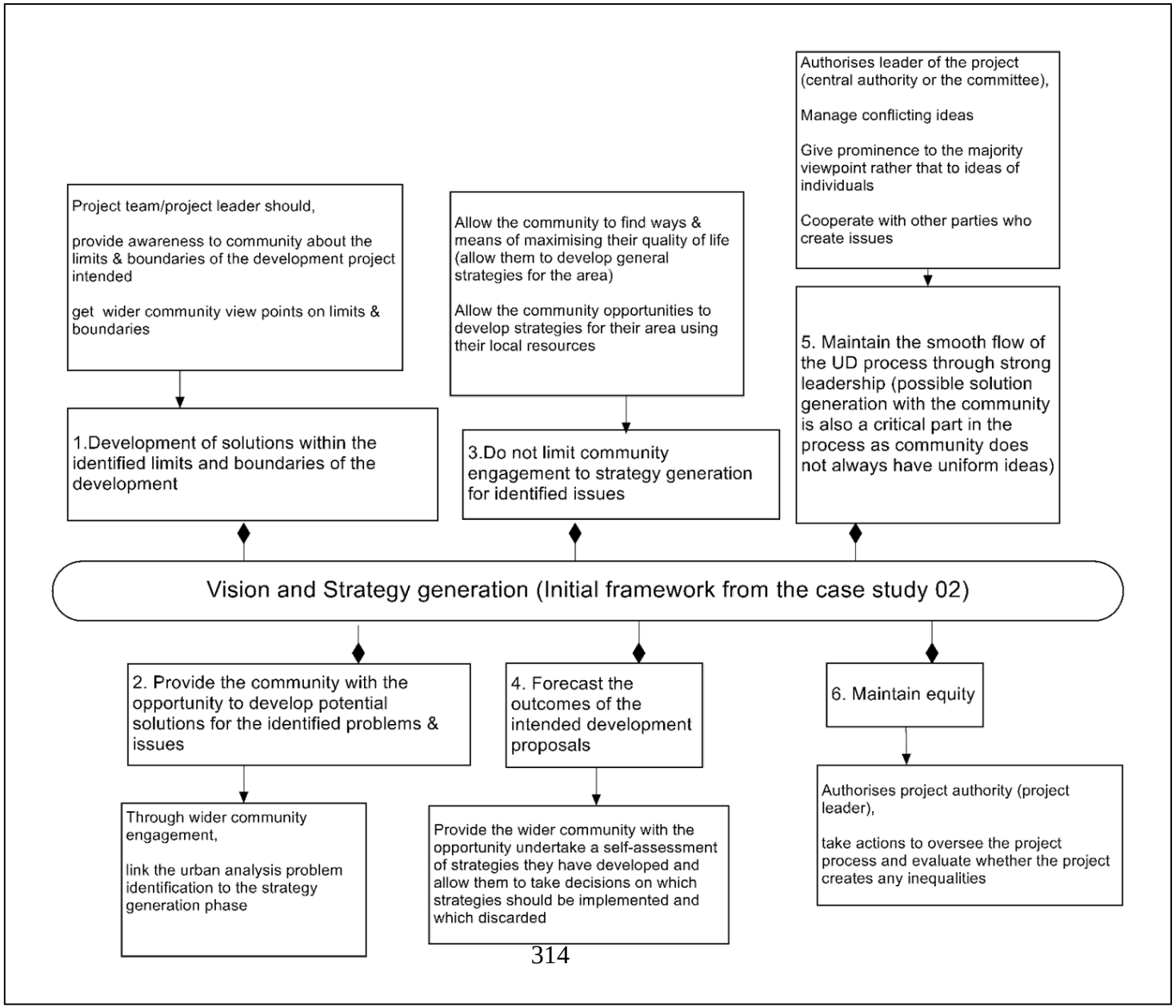
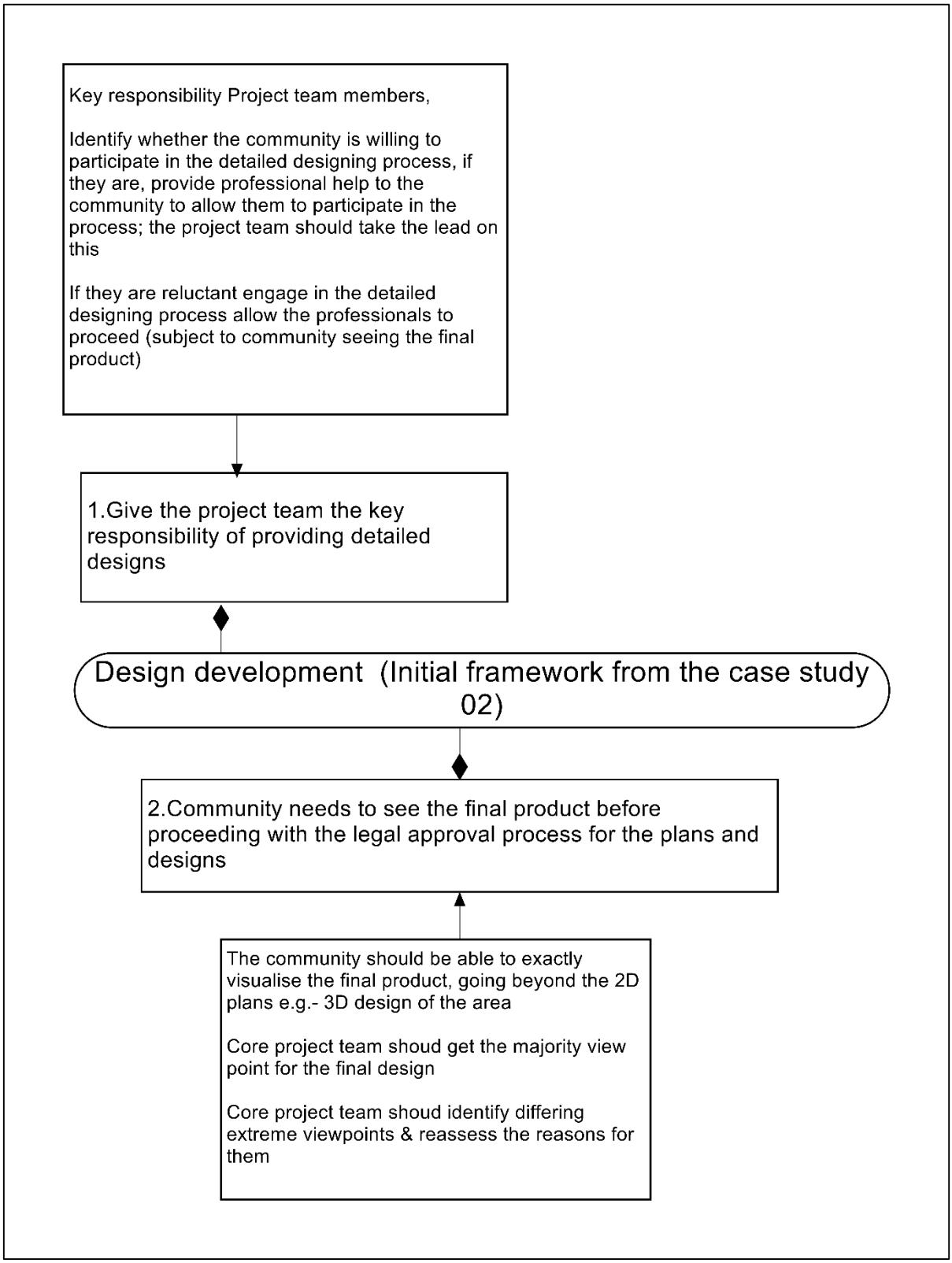


Figure 5-43-Design Development, initial framework from case study 02



5.6- SUMMARY OF THE CHAPTER

This chapter analysed Case Study two and presented the findings from Case Study 02. As described earlier the researcher employed the features of regenerative design in the UD project process which was analysed in this case study. In a nutshell, the regenerative design concept enhances the deep understanding about the urban environment, and therefore, it provides a prominent role for the community. According to the regenerative design process, the community is the key role player. Accordingly, the researcher followed the key steps described in the regenerative design in the UD project process. After full employment of regenerative design features in the UD process the researcher established 10 key factors which supported the construction of components for a potential UD process framework. Some of the KFs focused on urban analysis and some on strategy generation and design development. In conclusion to this chapter the researcher can confirm that the features of regenerative design can be positively adopted for the UD process at a number of points in the UD process as the researcher has been able to establish many KFs from the positive results which emerged by employing the features of regenerative design. However, employing the features of regenerative design is not always applicable in a potential UD process framework as wider community engagement is not always advisable and possible in the UD process specifically in the design development stage of the UD process. This is one of the key alterations necessary if the regenerative process is to be adopted into the new potential UD process framework. However, the researcher did not intend to only evaluate the regenerative design process but to establish components for new UD process framework by employing the features of the regenerative design process. Accordingly, based on the findings from this case study the researcher has built a conceptual UD process framework. This conceptual UD process framework should be further analysed with the conceptual UD process framework constructed for the finding from Case Study 01 to formulate a completely new conceptual UD process framework. The next chapter will discuss the cross case analysis in order to build the new conceptual UD process framework which was then triangulated with literature findings and validated by professionals and which lead to the finalisation of the new UD process framework.

Chapter 6 TOWARDS THE FINAL FRAMEWORK

6.1- INTRODUCTION

There are two key sections in this chapter. In the first key section of the chapter the researcher establishes the new UD process framework by comparing and contrasting the findings from two initial conceptual frameworks which were depicted in chapters 04 and 05. Thereafter, the researcher triangulated the literature findings with the established conceptual framework in order to evaluate how well the findings from the literature review are matched with the conceptual framework developed by the researcher. Once the conceptual framework was firmly established the researcher validated the conceptual framework with professionals in the field of urban design in order to bring about a definitive new urban design process framework for sustainable urban design. The sub-sections in this chapter will illustrate how the researcher accomplished each stage in order to firmly establish a new UD process framework for sustainable urban design.

6.2- THE CROSS CASE ANALYSIS

6.2.1- ESTABLISHMENT OF COMPONENTS TO THE PREPARATION STAGE OF THE UD PROCESS FRAMEWORK

This section explains the components established at the preparation stage of the UD process framework. As described earlier the researcher compared and contrasted the components established at the preparation stage of the two case studies.

One of the key components discussed in both case studies was the establishment of a leader at the preparation stage of the UD process. The findings from Case Study 01 revealed the need for ‘formulating a centralised leader’ in the UD process and the finding from Case Study 02 revealed the need for ‘formulating a centralised collaborative leader’. Therefore, the findings from both case studies established the need for centralised leadership and in particular asserted that the leader should have the power to initiate, direct and execute the UD process. Furthermore, the findings rejected the formulation of a set of leaders who would have equal powers in the UD process. Based on the findings from both case studies the researcher established the need for formulating a central leader in the UD process. However, Case Study 02 particularly informed the need for a centralised, collaborative leader rather

than an autocratic leader. Accordingly, the researcher finalised the component as the 'formation of a centralised collaborative leader' as the research findings indicated it is necessary that the leader should consider the opinions of all the other parties rather than making their own decisions. The KF, established in the section 5.4.4, emphasises the need for a collaborative leader, and furthermore, the researcher established the component 'collaborative central leader' because the new UD process framework enhances community based development where a collaborative leader must listen to other parties, in particular to the community. In support of this it is clear that community based development enhances the need for having a central leader because it is harder to manage the smooth flow of the UD process when there is decentralised leadership in a community based process.

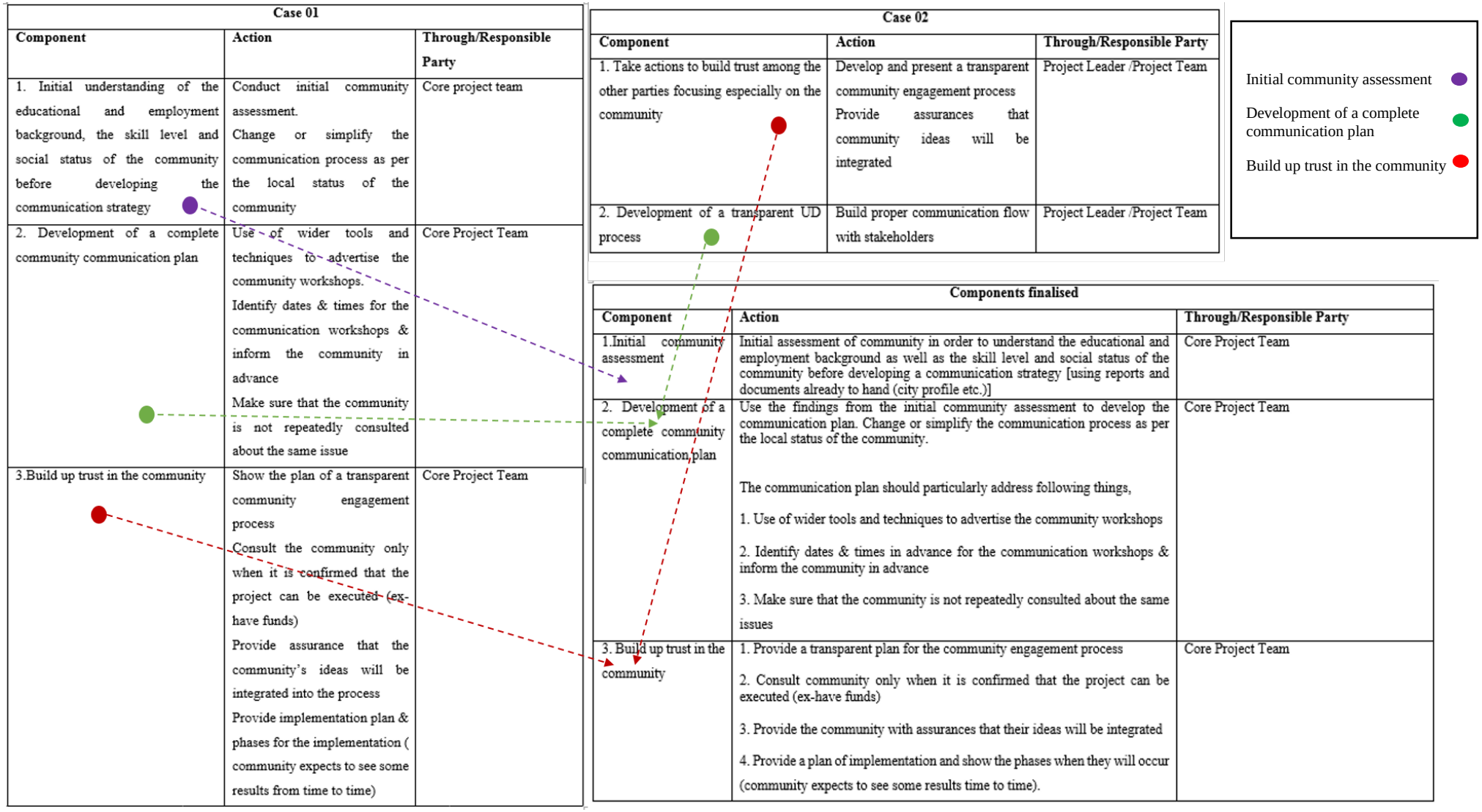
Case Study 01 established a component that requires the deadlines and milestones for the project to be decided by the core project team by executing the powers already invested in the leader. The researcher did not select this as a separate component of the UD process as deciding the deadlines and milestones is a common feature in any UD project where it is a responsibility of the project leader. However, Case Study 01 further demonstrated that the project leader should formulate the project team (core project team) at this stage by using the powers already allocated to the project leader. This was actually established under the KF discussed in section 4.4.1. Accordingly, the researcher assigned this component, which emerged from Case Study 01, to the new UD process framework as this allows a core project team to be established to work under a centralised leader and to have the opportunity to handle and execute the UD process. This ensures that different professionals representing the built environment are represented in the core project team to make sure that the decisions taken are sustainable in many aspects of urban development.

The next three components established for the UD process framework are interlinked and were established by assessing five components from both initial conceptual frameworks. A component that emerged from the findings, from Case Study 01, has shown that it is necessary to carry out an initial assessment of the community, regarding to their educational, employment and skill level in order to develop a comprehensive community communication plan. This component is supported by the components established in Case Study 02 which reveals that it is necessary to develop a transparent UD process with a proper communication flow with all stakeholders. Furthermore, another component that was derived from both case studies demonstrates that it is necessary to build trust with the community by developing a transparent community communication plan and both cases have supported the need for use

of different tools and techniques to communicate with the community at their level of education and skill. Based on all of these components derived from the initial frameworks, the following three components have been established. Figure 6.1 illustrates the establishment of the three components in the conceptual UD process framework.

1. Initial Community Assessment
2. Development of a complete community communication plan
3. Building trust with the community

Figure 6-1- The three components that were established by using five components from the initial concept models and their integration into the process framework



Case 01

Component	Action	Through/Responsible Party
1. Initial understanding of the educational and employment background, the skill level and social status of the community before developing the communication strategy	Conduct initial community assessment. Change or simplify the communication process as per the local status of the community	Core project team
2. Development of a complete community communication plan	Use of wider tools and techniques to advertise the community workshops. Identify dates & times for the communication workshops & inform the community in advance Make sure that the community is not repeatedly consulted about the same issue	Core Project Team
3.Build up trust in the community	Show the plan of a transparent community engagement process Consult the community only when it is confirmed that the project can be executed (ex-have funds) Provide assurance that the community's ideas will be integrated into the process Provide implementation plan & phases for the implementation (community expects to see some results from time to time)	Core Project Team

Case 02

Component	Action	Through/Responsible Party
1. Take actions to build trust among the other parties focusing especially on the community	Develop and present a transparent community engagement process Provide assurances that community ideas will be integrated	Project Leader /Project Team
2. Development of a transparent UD process	Build proper communication flow with stakeholders	Project Leader /Project Team

Initial community assessment

Development of a complete communication plan

Build up trust in the community

Components finalised

Component	Action	Through/Responsible Party
1.Initial community assessment	Initial assessment of community in order to understand the educational and employment background as well as the skill level and social status of the community before developing a communication strategy [using reports and documents already to hand (city profile etc.)]	Core Project Team
2. Development of a complete community communication plan	Use the findings from the initial community assessment to develop the communication plan. Change or simplify the communication process as per the local status of the community. The communication plan should particularly address following things, 1. Use of wider tools and techniques to advertise the community workshops 2. Identify dates & times in advance for the communication workshops & inform the community in advance 3. Make sure that the community is not repeatedly consulted about the same issues	Core Project Team
3. Build up trust in the community	1. Provide a transparent plan for the community engagement process 2. Consult community only when it is confirmed that the project can be executed (ex-have funds) 3. Provide the community with assurances that their ideas will be integrated 4. Provide a plan of implementation and show the phases when they will occur (community expects to see some results time to time).	Core Project Team

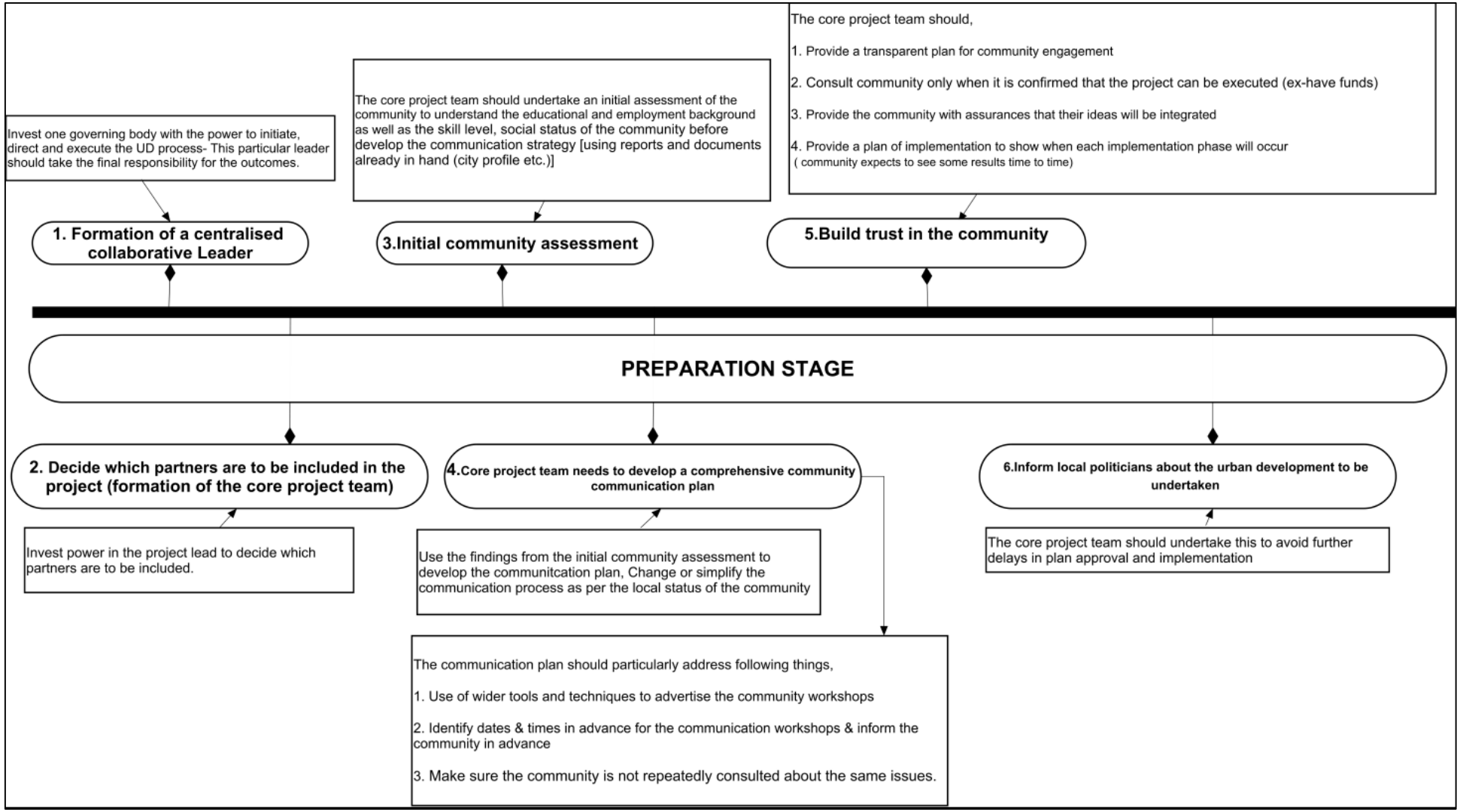
Thereafter, the component, 'inform local politicians about the urban development to be undertaken', was established by combining two components from the initial framework developed in Case Study 01. The figure below illustrates the combined components used to create the component for the UD process. The specific reasons for establishing this component were discussed in section 4.4.3 which is about the influential role that local politicians have in local development.

Figure 6-2- Combining two components of case 01

Component	**Action**	**Through/Responsible Party**
Clear potential future delays in approval & implementation	Inform local politicians about the urban development to be undertaken	Core project team to local politicians
Actions to attract community to the process	Obtain the help of local politicians to encourage the local community to get involved	Project Leader /Project Team
Inform local politicians about the urban development to be undertaken	This should be undertaken by the core project team to avoid future delays in approval of plans and their implementation	Project leader/Core project team

At this point the researcher discussed the set of components established at the preparation stage for the UD process framework. Figure 6.3 presents the conceptual UD process framework at the preparation stage.

Figure 6-3- UD process framework at the preparation stage



6.2.2- ESTABLISHMENT OF COMPONENTS AT THE PROBLEM IDENTIFICATION STAGE OF THE UD PROCESS FRAMEWORK

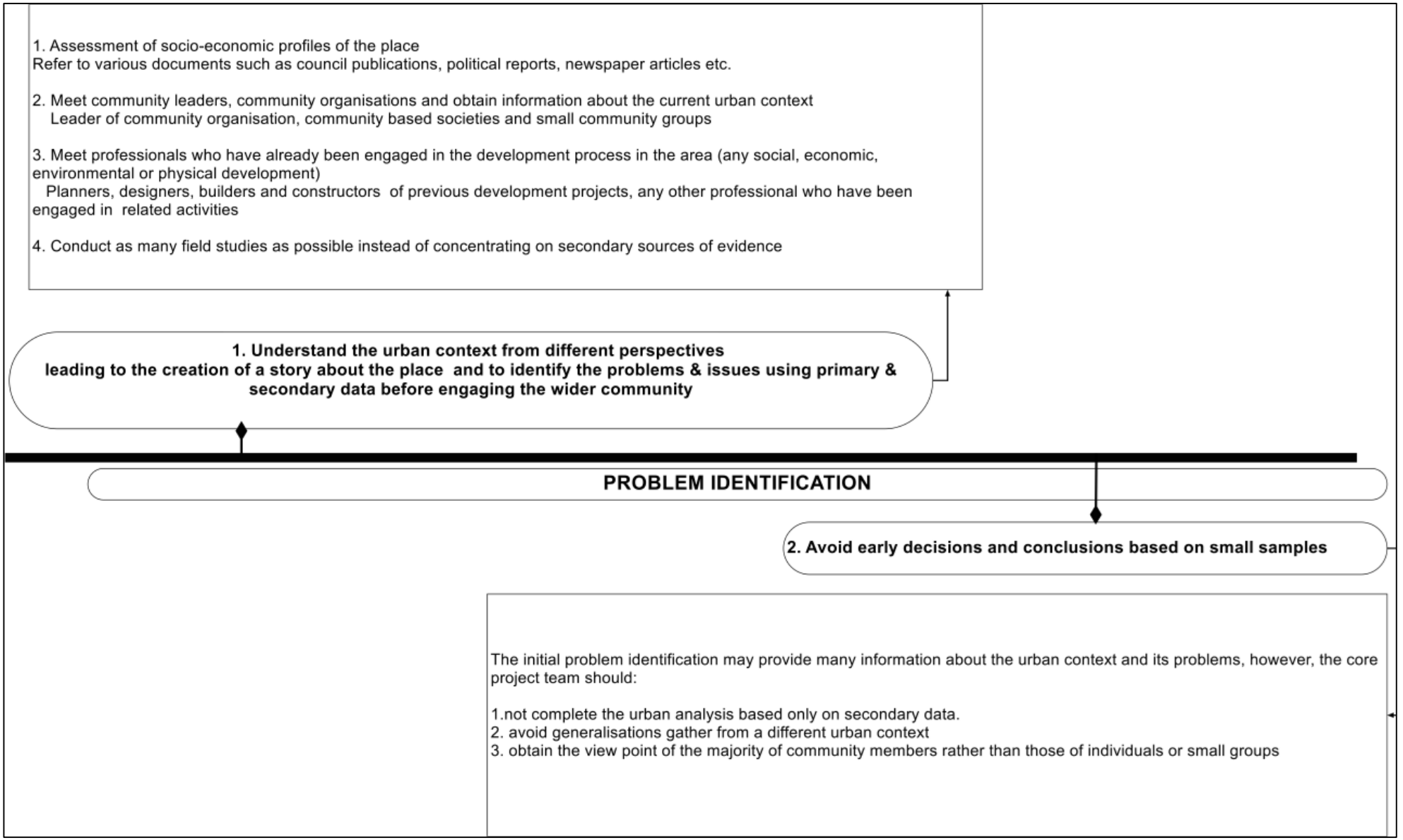
After establishing the components for the UD process framework at the preparation stage this section seeks to establish the components for the UD process framework at the problem identification stage. According to the initial process framework developed in Case Study 01 it is necessary to understand the urban context from a number of different perspectives. Therefore, it is noted that different stakeholders should be consulted at this stage in order to understand the urban environment. In a similar way Case Study 02 reveals that a story of the place should be built up using primary and secondary data before consulting the wider community about the urban environment analysis. The component established in Case Study 02 has also demonstrated that community representation (in terms of leaders) should be maintained in the initial analysis along with the assessment of socio-economic profiles, interviews with professionals who have participated in previous development work on the development site. Accordingly, both of the initial process frameworks have established a similar fact which is to conduct an initial assessment of the urban environment based on various data sources rather than relying on a single, particular data source. Accordingly, a combination of both components have established a comprehensive component for the UD process framework at the problem identification stage which is; to understand the urban context from different perspectives leading to the building of a story about the place and identifying the problems and issues using primary and secondary data before engaging the wider community. The established component recommends that an initial assessment of the place is conducted before engaging the wider community. From the information gained by the researcher from Case Study two, it was found that it is better to approach the wider community with tangible information rather than the community commenting randomly about a blank canvas. The wider community may not understand the exact focus of the urban analysis, or the project, unless the consultation takes place using tangible information, and the project team's efforts will be enhanced because they will already be familiar with the urban entity.

The next component established at this stage is combined with the component established above. As per the above component of the UD process it allows an-depth understanding of the area and its problems via various data sources and this type of comprehensive analysis may offer a clearer picture of the urban entity. Therefore, the project team may be able to

make an early decision not to analyse the urban environment further believing that the urban problem identification has already been accomplished. However, in reality, this may not be the exact situation at ground level as the current urban findings are derived from only a sample of the community, and other data sources, rather than allowing the wider community to comment on the urban environment. Therefore, this component provides a warning to the project team regarding the urban analysis rather than becoming another step to be done in the UD process. Accordingly, the component established can be introduced as ‘avoid early decisions’ and it has been established directly from the initial framework from Case Study 01. Even though a similar component was not found in the initial framework in Case Study 02 the researcher has selected this for the UD process framework because it provides an important message and a warning to the project team.

Figure 6.4 below reveals the two important components established at the problem identification stage and presents the two components in the UD process framework.

Figure 6-4- UD process framework -problem identification stage



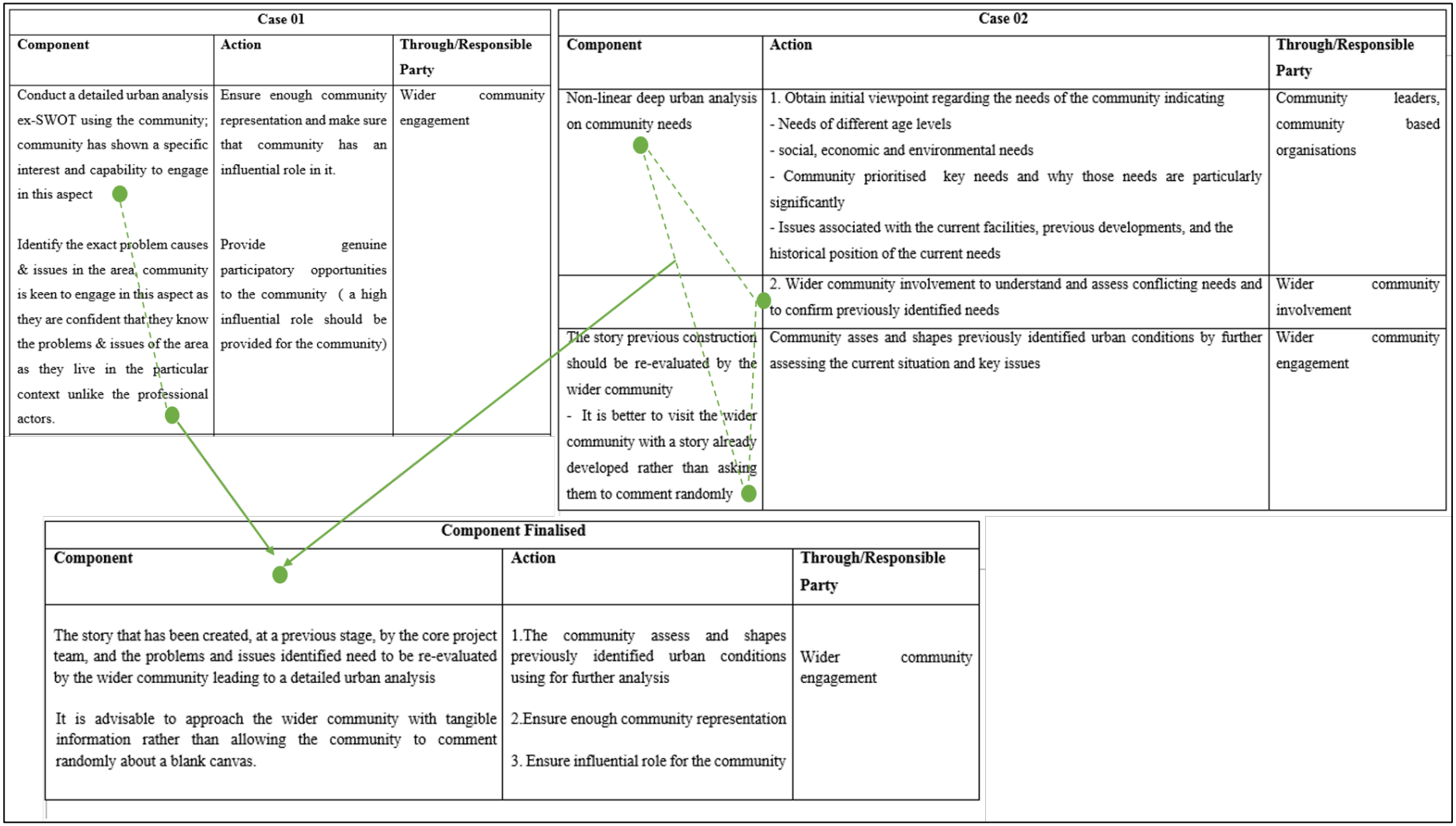
6.2.3- ESTABLISHMENT OF COMPONENTS AT THE URBAN ANALYSIS STAGE OF THE UD PROCESS FRAMEWORK

After successfully establishing the components for the problem identification stage the researcher now seeks to establish components for the urban analysis stage of the UD process framework. The initial framework developed from Case Study 02 has established a specific component for the UD process framework which advises that an in-depth assessment is conducted into the successes or failures of previous development work as part of the urban analysis. The researcher has selected this specific component for the conceptual UD process framework as it provides an excellent opportunity to take a critical look at work which has been carried out previously. Generally, in any urban development or design project the area may have already undergone recent or past development work. Such development may have significantly affected the current status of the area and may also have created additional issues in the area. Therefore, it is extremely important to reveal any facts and figures associated with the previous development. The need for undertaking an in-depth assessment of previous work was firmly established in section 5.4.1. Due to this the researcher has selected this component for the conceptual UD process framework and schedules it as the first thing to be assessed at the urban analysis stage. The key reason for this is that the current status of the urban entity may be an outcome of the previous development work, and therefore, it is necessary to clearly identify the effect of previous development work on the urban environment in order to conduct an in-depth assessment of the urban environment.

The next component for discussion is one of the most important components in the UD process framework which specifically describes the urban analysis and is a combination of several components established in the two initial process frameworks. The initial process framework developed in Case Study 01 has recommended that a detailed urban analysis is conducted by engaging the wider community. This runs concurrently with another component established in the same initial framework which observes that it is necessary to identify the exact problems and issues of the area by providing genuine participatory opportunities to the community. This component specifically requires that the community is provided with a highly influential role in the process. Thereafter, another component, from the same initial framework, states that it is necessary to undertake a qualitative and quantitative urban analysis noting that the urban analysis should be based on human and published figures. Analysis based on human figures is already represented through

community engagement and the analysis based on published figures is already represented by the component established at the problem identification stage. Based on this the researcher has not added the component ‘qualitative and quantitative urban analysis’ to the final UD process framework. However, the other two components which were discussed above, have informed that similar factors need to be undertaken at the urban analysis stage, such as engaging the wider community in the urban analysis. Accordingly, the researcher combined the two components into one conceptual component in the final framework thereby establishing the need for wider community engagement in the urban analysis. Therefore, when examining the components established from Case Study 02, one component advocates that a non-linear, in-depth analysis should be made about community needs by using the wider community and the other component recommends that the ‘story that has been created at the previous stage, by the core project team, should be re-evaluated by the wider community’. However, both of these components support the use of the wider community at the urban analysis stage. Two further components from the initial framework in Case Study 01, which was discussed earlier, also suggested the engagement of the wider community at the urban analysis stage; but these components have described different aspects that should be assessed by engaging the wider community. One component supports the idea that community needs should be assessed by using the wider community and the other component proposes that current problems and issues should also be assessed through the engagement of wider community. Accordingly, in a viable UD process framework all these components are assessed together rather than assessing the needs separately from the problems. Basically, community needs are an outcome of the current urban problems. Therefore, the researcher combined all these components into one component recommending that the problems, issues and needs of the urban environment should be identified by engaging the wider community; this should be linked with the previous urban assessment which should allow the wider community to shape the previously delivered assessment of the place; in other words, the previously developed story of the place should be assessed by the wider community in order provide a comprehensive picture of the urban environment. The figure below illustrates the definitive component based on the several components described above.

Figure 6-5-Establishment of component 'The story that has been created, at a previous stage, by the core project team, and the problems and issues identified need to be re-evaluated by the wider community leading to a detailed urban analysis'



Case 01

Component	Action	Through/Responsible Party
Conduct a detailed urban analysis ex-SWOT using the community; community has shown a specific interest and capability to engage in this aspect Identify the exact problem causes & issues in the area, community is keen to engage in this aspect as they are confident that they know the problems & issues of the area as they live in the particular context unlike the professional actors.	Ensure enough community representation and make sure that community has an influential role in it. Provide genuine participatory opportunities to the community (a high influential role should be provided for the community)	Wider community engagement

Case 02

Component	Action	Through/Responsible Party
Non-linear deep urban analysis on community needs	1. Obtain initial viewpoint regarding the needs of the community indicating - Needs of different age levels - social, economic and environmental needs - Community prioritised key needs and why those needs are particularly significantly - Issues associated with the current facilities, previous developments, and the historical position of the current needs	Community leaders, community based organisations
	2. Wider community involvement to understand and assess conflicting needs and to confirm previously identified needs	Wider community involvement
The story previous construction should be re-evaluated by the wider community - It is better to visit the wider community with a story already developed rather than asking them to comment randomly	Community asses and shapes previously identified urban conditions by further assessing the current situation and key issues	Wider community engagement

Component Finalised

Component	Action	Through/Responsible Party
The story that has been created, at a previous stage, by the core project team, and the problems and issues identified need to be re-evaluated by the wider community leading to a detailed urban analysis It is advisable to approach the wider community with tangible information rather than allowing the community to comment randomly about a blank canvas.	1.The community assess and shapes previously identified urban conditions using for further analysis 2.Ensure enough community representation 3. Ensure influential role for the community	Wider community engagement

Another specific component established for the UD process is 'the assessment of locally specific conditions.' This component is a specific factor which should be considered in the UD process because it was represented in both of the initial frameworks established. The initial framework in Case Study 01 describes local specific features such as history and culture which should be specifically assessed in the UD process by engaging the wider community. Similarly, the initial framework in Case Study 02 has recognised that it is necessary to assess area specific conditions, such as, the history and image of the area etc. However, the second case study informs that these specific features should be assessed by involving different parties rather than relying solely on the wider community as mentioned in the initial framework in Case Study 02. However, both initial frameworks identify the need for this specific assessment in the UD process therefore the researcher established the component 'assessment of other area specific conditions'. In support of the findings from the initial framework from Case Study 02 the researcher decided that these specific features should be assessed using different data sources rather than relying solely on the wider community. Accordingly, these area specific conditions should be assessed at the initial problem identification stage as well as during the urban analysis via wider community assessment. The table below presents the component in detail illustrating the specific features which should be assessed.

Table 6.1- Specific conditions which should be assessed in the urban analysis

Component	**Action**	**Through /Responsible party**
Assessment of locally specific conditions	Assessment of History - Previous land use in the area - Previous successes or failures in the area - decline and growth in the area - Effect of previous successes and failures on the current condition in the area	Wider community & planners, designers, builders & constructors of previous development projects and any other

	Assessment of Image - Assessment of hidden social issues related to the image of the area - Identify the parties who have created the current image of the area - Identify the reasons for the current image - Identify what is required to transform the image	professional who is engaged in related development activities. Archived documents, reports
	Assessment of the relationship with adjoining neighbourhoods - Identify the relationships with the adjoining neighbourhoods - Identify how to maintain and strengthen the current relationships and the potential for receipt of mutual benefits	

	Comprehensive area potential identification -Identify specific potential in the area and people & link them with the urban development projects -Identify the hidden skills of the people -Reveal the history of the area and link historical potential with the future development -Conduct an assessment of current potential in the area which can be directly linked to the development.	

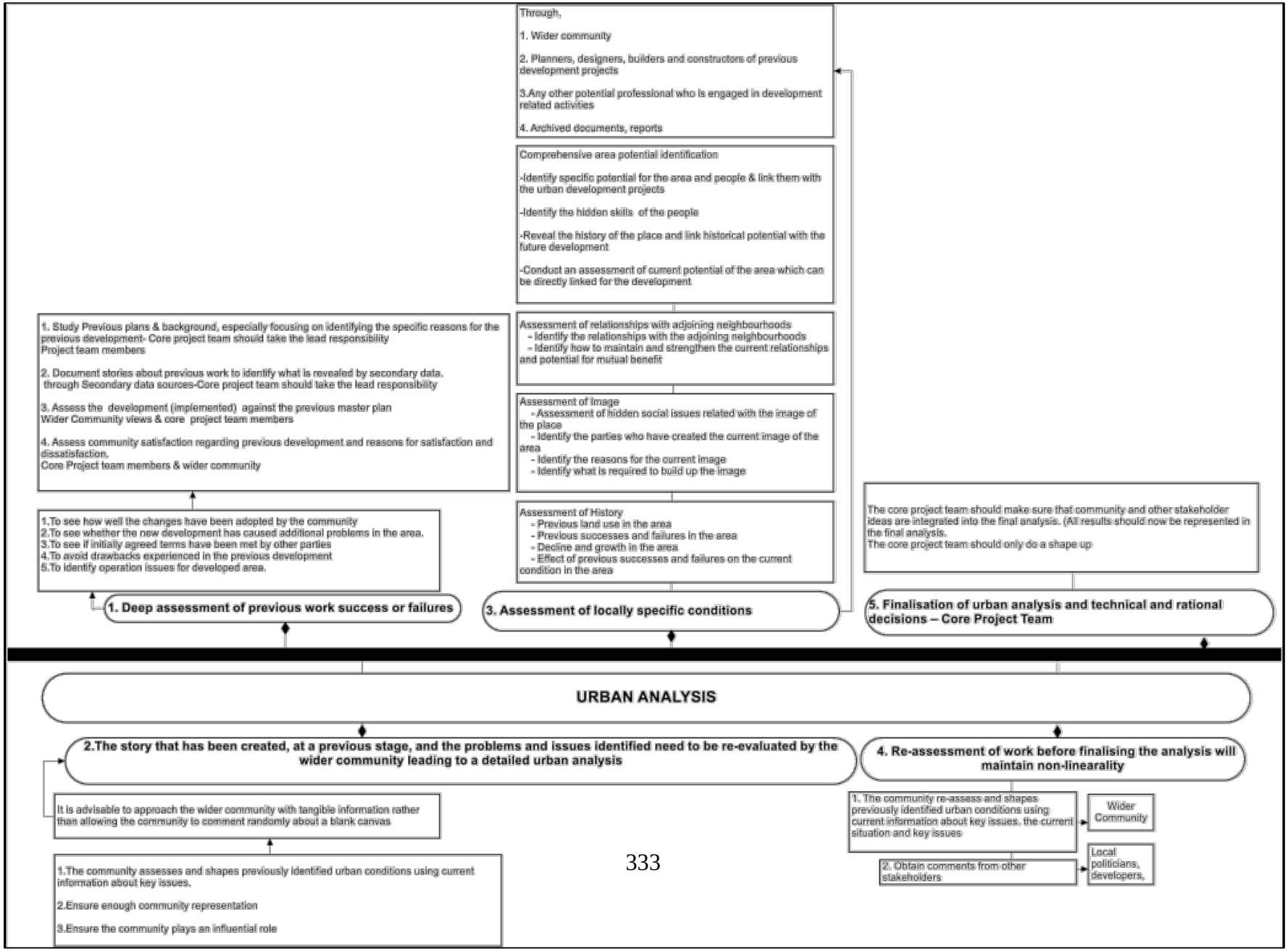
The initial process framework from Case Study 01 requires that a second review of the urban analysis should take place once the initial urban analysis has been completed by the community and other stakeholders; this fact is already represented in the initial process framework from Case Study 02 framework which maintains a non-linear nature. As per the process framework from Case Study 02 the story developed at the initial problem identification stage has been shaped by the wider community, however, the second process framework does not specifically call for another review once the urban analysis is completed. However, the researcher has established a second review of the full urban analysis as a separate component in the UD process framework to make sure that the urban analysis has

not missed any important facts and that the analysis is complete and comprehensive. However, this is somewhat time consuming and incurs a cost, so although this has been established as a component, the researcher will seek to verify it with professional actors during the expert interviews and modify or alter this component accordingly.

According to the initial process framework, established in Case Study 01, finalisation of the urban analysis and any rational and technical decisions should be taken by the central leader for the project. However, there is another component, 'integration of community ideas', within the same initial framework which stipulates that community ideas should be integrated into the final process framework and the sole authority for this is the project leader. This is supported by the initial process frameworks in Case Study 01framework and Case Study 02 which maintain that the smooth flow of the UD process should be achieved through a strong leadership; the reason being that conflicting ideas of individuals and small community groups need to be acknowledged and resolved. Based on these facts the researcher determined that the finalisation of the urban analysis should be undertaken by the core project team rather than by stakeholder engagement.

With the establishment of the above component the researcher has established all the components for the UD process framework at the urban analysis stage. The figure below presents the UD process framework for the urban analysis stage with all its components and details.

Figure 6-6-Conceptual UD process framework for urban analysis stage



6.2.3- ESTABLISHMENT OF COMPONENTS FOR THE VISION MISSION & STRATEGY GENERATION STAGE OF THE UD PROCESS FRAMEWORK

The researcher has established 11 components for this particular stage of the UD process. Accordingly, the initial process framework from Case Study 02 has established a component which informs the need for developing solutions within the identified limits and boundaries of the development. This demonstrates the need for informing the community about the scope and focus of the UD project at the beginning of the strategy generation stage. Furthermore this component is particularly related to obtaining the views of the community about the limits and boundaries of the development as the community will be able to specify the locations which should remain unchanged by the UD project. Even though this was established only in the initial process framework derived from Case Study 02 the researcher has assigned this component to the final process framework as this kind of scoping is extremely important when working with the wider community. The wider community does not always proffer uniform ideas therefore it is necessary to inform them of the focus of the UD project to ensure the maximum potential engagement of the community in strategy generation. The need for this component was firmly established in section 5.5.6.

The next component established for the UD process framework was derived from the initial framework established in Case Study 01. It is formed to avoid pre-developed visions in the UD process and to ensure that the urban analysis findings are integrated in the vision development and allows the wider community to develop a vision for themselves. The researcher has placed this component in the UD process framework because a vision developed by the community is required when community engagement is a core feature of the UD process. As already established, and as will be discussed, the community has a strong influential role to play in the UD process framework. Therefore, if a vision is not developed by the community it may cause confusion in future stages of the UD process; also a vision generated by a different party other than the community may not exactly represent the needs of the community in the vision development. On one hand this will adversely affect the enthusiasm of the community to be engaged in the process whilst on the other hand lack of representation of ground level conditions in the vision may adversely affect the strategies generated.

The next component in the discussion is one of the most important components in this stage and the need for this component in the UD process framework was represented in both initial process frameworks. According to the initial process framework in Case Study 01 it is necessary to provide the community with participatory opportunities before initial plans are made. This component enhances wider community engagement in strategy generation but also recommends that the community should be guided by professionals allowing them to participate more effectively. Supporting this component are two further components, from the same initial process framework, one of which necessitates the development of solutions which directly address the problems and issues of the community using the wider community whilst the other component is linked to avoidance of strategies that are based on smaller groups from the community. This means it supports the engagement of the wider community at the strategy generation stage. All the components identified in the initial framework 01 regarding wider community engagement in strategy generation stage is represented by the component 'provide the community with opportunities to develop potential solutions for the identified problems and issues' obtained in the case study 02. This component directly influences the need for wider community engagement in the strategy generation of the UD process. Accordingly, by combining the three components from the initial process framework in Case Study 01 and the component from the initial process framework in Case Study 02 the researcher has established the component for enhancing the engagement of the wider community at the strategy generation stage. The following table presents the established components in detail.

Table 6.2-Components established regarding community engagement in strategy generation

Component	**Actions**	**Authority/ Responsibility**
Provide the community with participatory opportunities before preparation of draft strategies and plans, but the first step should be based on the urban analysis	Community should be provided with the opportunity to present potential solutions before plans are developed, there is no point consulting the community after the plans are formed; thereby just informing the community of the outcomes	Core project team should open up opportunities for the wider community

After establishing the need for wider community engagement in strategy generation the researcher has examined another component which was established in the initial process framework from Case Study 01. This component is not exactly another step to be considered in the UD process but is an important feature to be considered at the strategy generation stage of the UD process. The component particularly mentions the need for avoiding pre-identified decisions in strategy generation. As discovered in section 4.4.5 arriving at early decisions, based on previously developed urban solutions, was a common feature in Case Study 01 and it negatively affected the UD process framework conducted in Case Study 01. Based on this the researcher established the component 'avoid pre-identified decisions' from the initial process framework in Case Study 01. In considering the importance of the component from the initial process framework the researcher has included it in the conceptual UD process framework. Accordingly, this component recommends, that in strategy generation, the project team should avoid solutions which have been identified in previous reports and also avoid applying solutions which were used in a different urban context of a similar nature.

Based on the initial process framework from Case Study 02 the researcher has established another component for the UD process framework which asserts that community engagement in strategy generation should not be limited to developing solutions for identified issues. It further denotes that the following two actions should be offered to the community within this component:

1. Allow the community to find ways and means to maximise their quality of life (allow them to develop general strategies for their area)

2. Allow the community opportunities to develop new place making strategies using local resources

This component based on the researcher's experience of engaging the community in strategy generation in Case Study 02. The community was extremely keen to develop strategies for their own neighbourhood but they did not limit it to only addressing identified issues. They examined the potential of the area and developed better solutions to enhance their quality life. Section 5.4.7 firmly established the importance of this, and accordingly, the researcher included the component in the UD process framework.

Another interesting component initially established in the initial process framework from Case Study 02. This component explains that the community should be given the opportunity to forecast the outcomes from the intended development proposals and provides an opportunity for the community to re-assess the strategies they have developed and allow them to make decisions on which strategies are feasible and which are not. The need for this was established in section 5.4.7., and based on the discussions the researcher concluded that this component should be part of the UD process framework. This type of forecasting allows the community themselves to identify the possible outcomes of their own proposals and once they are aware it is easier to manage the UD process.

The next component included in the UD process framework was 'management of conflicting ideas'. This component establishes the need for identifying and examining the viewpoint of the majority of the community rather than focusing on individual needs or those of small groups. The core project team has the responsibility for this aspect as revealed in the initial process framework in Case Study 02. This issue was not particularly highlighted in Case Study 01 but since this process framework enhances the engagement of the wider community in strategy generation it is necessary for the core project team to have the authority to manage conflicting ideas. Basically, the core project team should have the authority to manage conflict in community engagement. This is also linked to the foremost component regarding leadership powers. However, this is an extremely important component in the UD process, especially in strategy generation, as the community is not always uniform in their solutions for identified issues. Therefore, authority should be given to one party for the management of conflict and this should be specifically established as a separate component in the UD process in strategy generation.

The next component established also appears only in the initial process framework in Case Study02. This component deals with maintaining equity in the developed strategies and directs the project team to take actions to oversee the project process and to evaluate whether the project has created any inequalities. This is an extremely important component when engaging the wider community as they may often produce ideas that create issues and inequalities for some community groups; therefore the project team should have the management power to oversee the process and to take action to maintain the equity. The need for maintaining equity was discussed in section 5.5.1.

The next two components from the UD process framework were established by aligning two components established in the initial process framework from Case Study 01. The initial framework found that it might be advisable to consult the academic community in order to improve the strategies developed by the wider community. The component promoted consultation with the academic community in order to obtain their point of view and to integrate their suggestion into the draft solutions. It is a good practice to consult academics to improve the draft solutions by incorporating any new concepts from the academic community. However, consultations of this nature are time consuming and costly, therefore the researcher established this component as an optional component in the UD process framework to be adopted depending on the nature of the UD project concerned. In addition the initial process framework from Case Study 01 advised obtaining technical input from developers, constructors etc. who would actually implement the intended solutions in the UD project. The researcher incorporated this component into the UD process framework because having an overall idea about critical issues related to implementation, at an early stage, is important to enable solutions already developed to be altered at the strategy generation phase itself rather than informing the community at a later time that the proposed plans are not technically viable, and that the plan will be changed to accommodate the technical requirements. Technical difficulties of this kind affect the trust of the community therefore it is extremely important that this component in incorporated into the UD process framework. Section 4.4.3 discussed this issue in detail.

The final component is about finalising the solutions developed at this stage. The initial process framework from Case Study 02 determines that the smooth flow of the UD process should be maintained through strong leadership allowing management of conflict generated by community engagement; therefore it is found that leadership power should be granted to the project leader and that the wider community should play an influential role. Supporting the component found in the initial process framework in Case Study 02 and establishing the final component, the initial process framework in Case Study 01 revealed that is necessary for final decisions, at this stage, should be taken by the central project leader. Accordingly, the researcher has finalised the component as ‘finalisation of the strategies generated, and rational and technical decisions, (Ex-complying with planning and building regulations) are to be taken by the central project leader’. However, the project leader may not be conversant with all of the planning and building regulations applicable to the developed strategies at

this stage, but the core project team will have an overall idea about the planning and building regulations which may come into effect once the design solutions are generated.

Accordingly, the following two figures present the components of the UD process framework at the strategy generation stage with all the actions which are to be implemented. The researcher has presented this in two figures only for the purpose of visual clarity.

Figure 6-7-UD process framework at the strategy generation stage- Part 01

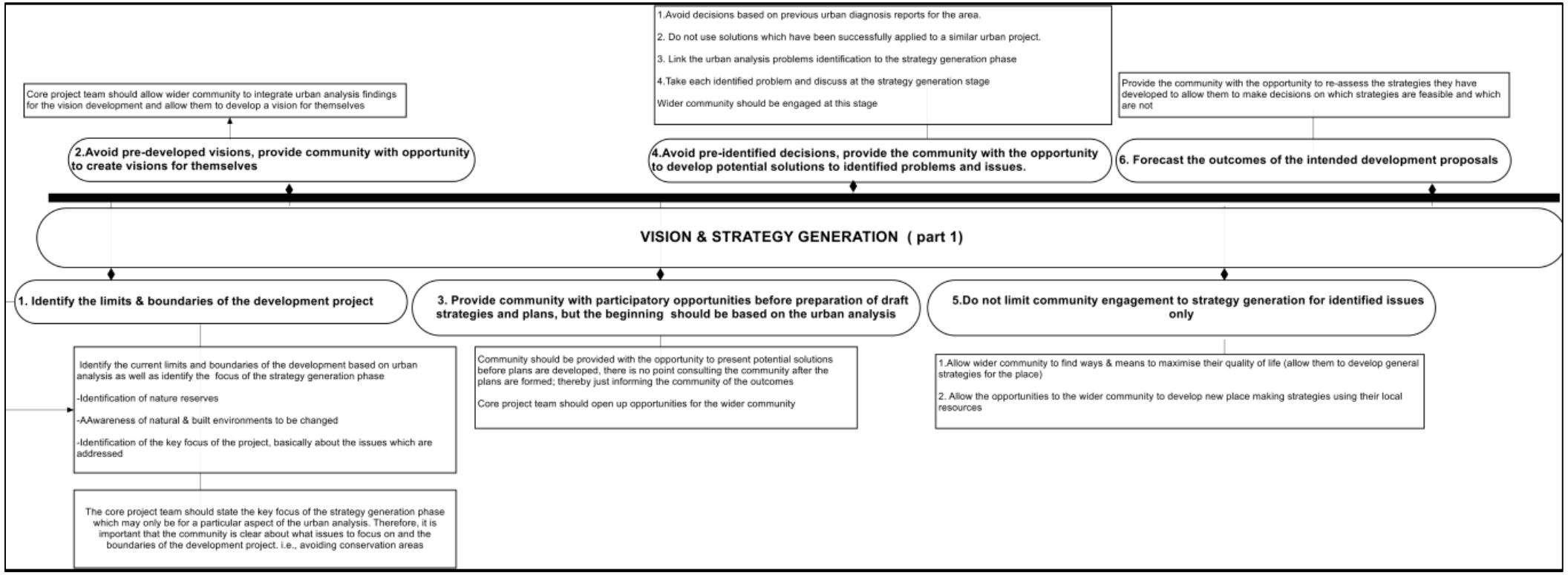
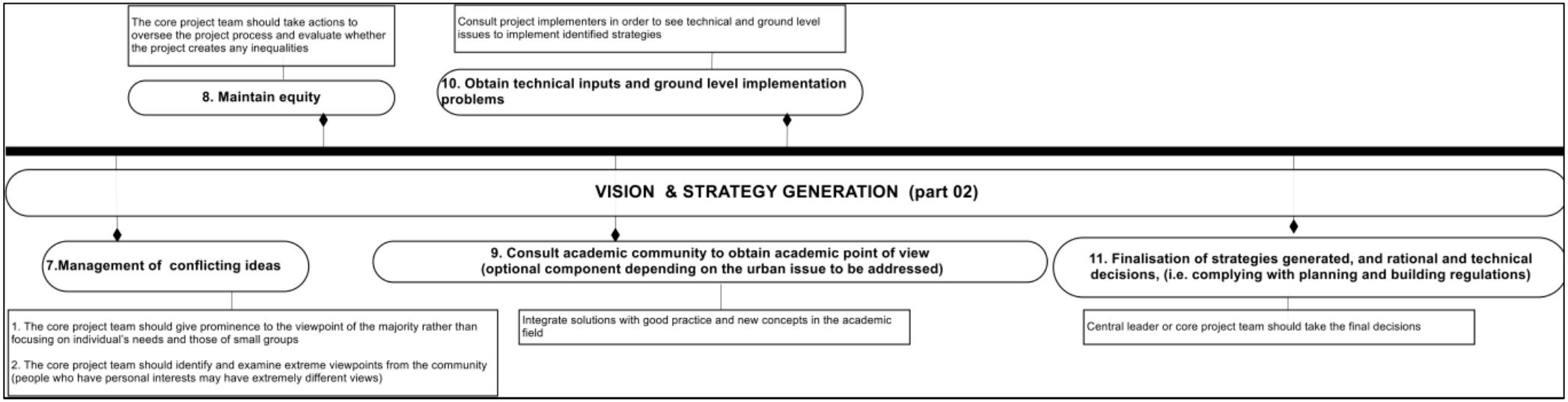


Figure 6-8- UD process framework at the strategy generation stage- Part 02



6.2.4- ESTABLISHMENT OF COMPONENTS TO THE DESIGN DEVELOPMENT STAGE OF THE UD PROCESS FRAMEWORK

In the design development stage three components were established for the UD process framework. The first component established describes the role of the community at the design development stage. As demonstrated throughout the new UD process framework it enhances the engagement of the wider community up to the strategy generation stage. However, the components established at this point in the process do not specifically encourage wider community engagement in design development. The initial process framework established in Case Study 01 revealed that the community should not be particularly encouraged to engage in this stage and states that professional actors should take the lead role in design development. It is further discussed that the community can be engaged to provide potential design ideas but should not engage in design development. The key reason for this is the community's ability and the willingness of the community to actively engage in the design development. The role of the community and their capability was firmly established in sections 4.4.2 and 4.5.2. In support of this the initial process framework from Case Study 02 also discouraged wider community engagement at the design development stage. Case Study 02 has established that the project team should take the lead role in design development but this initial process framework does not totally discourage wider community engagement in design development. According to this framework the role of the community should be decided by the project leader or the core project team based on their interest in participating in design development. The key reason for this is that in many instances the wider community is unwilling to participate in the design development; however the initial process framework in Case Study 02 further reveals if they are engaged they should be guided by the project team. Sections 5.4.8 and 5.5.8 describe this in detail. Based on the findings from the both initial process frameworks the researcher established two components for the UD process framework; one allows the core project team to identify whether the community is willing and able to participate in the design development process based on experience of community engagement throughout the previous stages and referring to community skills which were identified at the preparation stage of the UD process. The researcher has established the component allowing the project team to take the decision on whether or not to engage the wider community in design development. Should individuals be interested in engaging design development the project team can assist them but if they

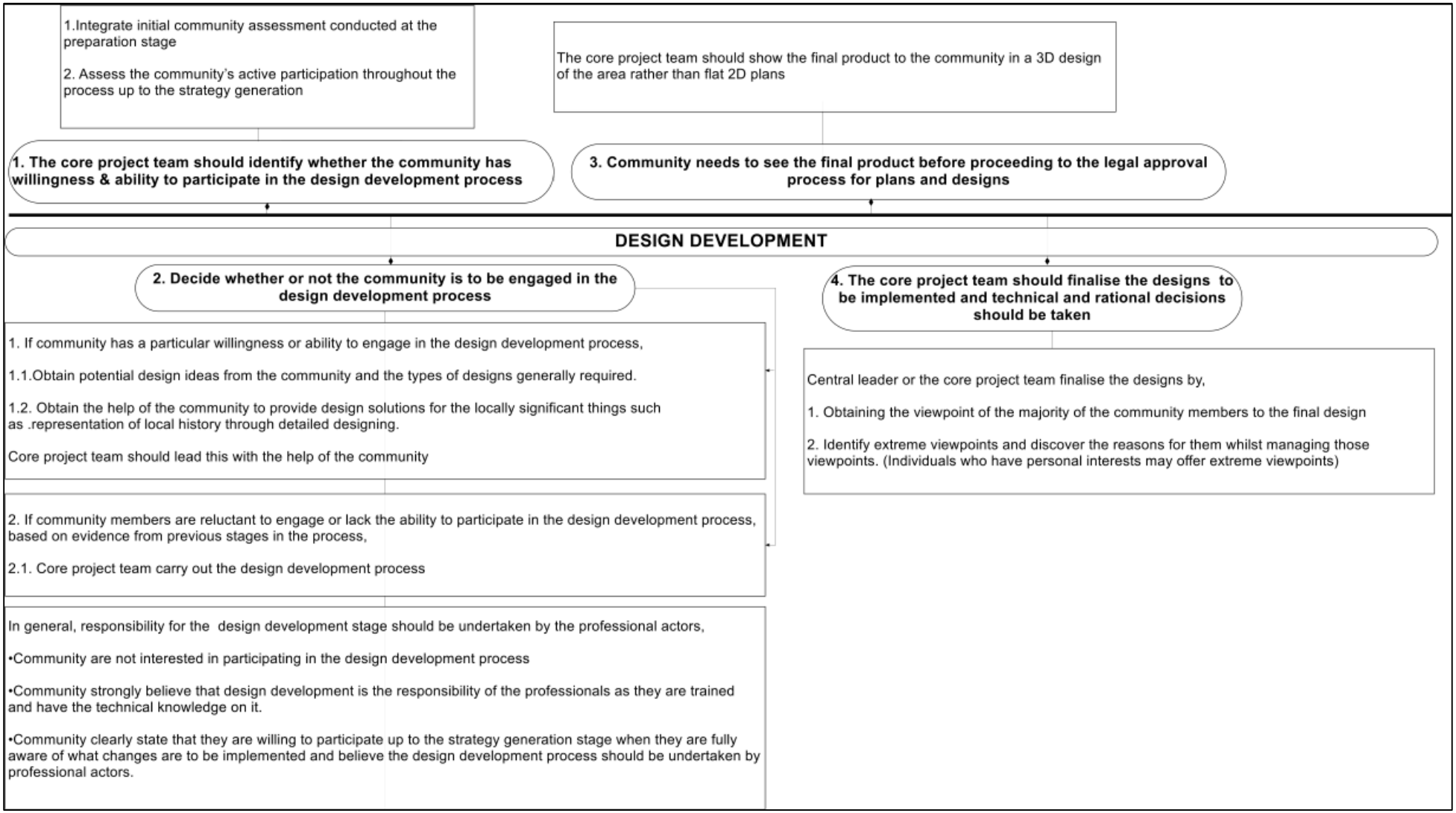
are reluctant and do not have the ability the project team should conduct the design development process. However, in general, community engagement is not viable in many instances due to the community's lack of ability and their unwillingness to engage in this stage. In addition, this component does not allow the use of design solutions which have previously been applied to a different urban environment; instead, this component encourages the project team to integrate strategies generated for the design development. The need for avoiding pre-identified design solutions was established by the initial process framework in Case Study 01 but the researcher did make it into a component for the UD process framework because it is already represented in the component established above.

The second component established in this stage is one of the most important components and is also linked with the previous component. As discovered in both initial process frameworks the community is unwilling to engage in design development but they are anxious to see the final product before it is finalised. The initial process framework in Case Study 01 discovered that professional actors should integrate community ideas in design development; this is linked with the next component established in the initial process framework in Case Study 01; that the viewpoint of majority should be taken into consideration when finalising the design solutions. Supporting the above two components and establishing the final component from the initial process framework in Case Study 2 is the need for the community to see the final product before proceeding to the legal approval process and it particularly promotes the idea that plans should be represented in a 3D version rather than 2D flat plans. Accordingly, the component was established by the researcher to 'show the final product to the community in a 3D version' before proceeding to the legal approval process.

The next component established is also linked to the previous component; once the final product is visualised by the community there is another step to be done which is to obtain the final comments from the community to finalise the proposed UD solutions. Both initial process frameworks helped the researcher to finalise the component 'the core project team should finalise the detailed designs to be implemented and technical and rational decisions should be taken'. The component from the initial process framework in Case Study 01 'the project leader should have the authority to finalise the design solutions' and the sub-components from the initial process framework from Case Study 02 'obtain the majority viewpoints in the design solution finalisation' and 'management extremely different viewpoints' assisted the researcher to finalise the above mentioned final component for the

UD process framework. The figure below presents the full set of components established for the UD process framework under at the design development stage in detail.

Figure 6-9-Components for the UD process framework at the design development stage



6.3- CONCEPTUALLY EVOLVED FRAMEWORK & THE LITERATURE REVIEW

In this section the researcher seeks to compare the conceptually evolved UD process framework with the literature informed potential UD process framework. The researcher established the conceptual UD process framework purely based on the results which were inductively derived from the two case studies. However, before collecting data from the two case studies the researcher had already derived a literature informed potential UD process framework. Section 2.5.7 discussed this in detail. In this section the researcher tried to critically compare whether the conceptual UD process framework has addressed the key factors derived in the literature informed UD process framework, and if not, why those key factors are not represented in the conceptual UD process framework. The researcher's intention is to value the firmness and validity of the conceptual UD process framework by critically comparing it with the literature findings. Firstly, the researcher has presented below the set of key factors identified from the literature review and thereafter the researcher has critically described each key factor with the components established in the UD process framework.

Table 6.3- Set of key factors derived from literature

Key Factor	**Sub Factors**
<u>Preparation Stage</u> 1.Creation of leadership & control of the UD process 2.Feeling of control & efficiency 3. Comprehensive scoping process	Project champion to lead & continue
<u>Problem Identification</u> 1.Start with open mind	Start as a fresh process
2. Capture locally significant factors	Identification of needs, ideas and knowledge of the community through community views & views of the professionals

Urban Analysis 1. Avoid early decisions	Do not rely on the findings at the problem identification stage
2. Deep urban analysis based on ground level facts	Consider local specific conditions- obtain community views Identify culture, values & customs Identify existing economic activities Assess the physical setting Examine the local history Through community views, professionals, local businessmen, secondary data etc.
3. Comprehensive urban analysis based on both subjective & objective elements	Qualitative analysis to diagnose local context without relying on quantitative data only - should not rely only on secondary data sources, consider human facts
4. Powerful play by non-designers	Equal opportunities for community participation
Vision Mission & Strategy generation	
1. Address local requirements in the design solution	provide community participation in decision making
2. Avoid clean slate design	Complement existing economic activities Should avoid use of blanket policy Consider local specific conditions
Design Development 1. Iterative community based process combined with design theories and principles	Integration of initial design ideas of the community with core design principles

The first key factor derived from the literature review explains that a leader should be appointed to take overall control of the UD process at the preparation stage; this is supported by the next key factor from the literature review which explains that there should be a feeling of control and efficiency throughout the process. This indicates that the project leader should create an atmosphere of being in full control throughout the UD process. In addition to this the third key factor reveals that comprehensive scoping should be undertaken in the UD process and the literature findings have revealed that to scope the project process and to make the process efficient, whilst also providing leadership, a project champion should be formulated at the preparation stage. This is a robust component established in the conceptual UD process framework developed by the researcher and based on the findings from the case studies. The need for a project leader was firmly established by the both initial process frameworks which led to finalisation of the component 'formation of a centralised collaborative leader' in the conceptual UD process framework. However, as per the literature findings this project champion is formed not only to initiate the UD process but to comprehensively scope the UD process and manage it. Furthermore, as the literature explains the project leader should create an ambiance of control and efficiency. This fact is also positively represented and established in the conceptual UD process framework as at the end of the each key stage the project leader has the authority to make decisions to finalise the work at each stage. Furthermore, in the conceptual framework powers have been allocated to the project leader or to the core project team to manage the UD process and conflicts created by community engagement. As indicated by the literature review this ensures the control and efficiency of the UD process. Therefore, the researcher can conclude the first three key factors, derived from the literature review, necessary for a sustainable UD process have been thoroughly represented in the UD process and therefore, the stability of the process developed is established at this point.

At the problem identification stage there is a literature informed key factor which advocates 'start the problem identification with an open mind'. This key factor has been further supported by another sub-factor saying that problem identification should begin as a fresh process. In the research informed conceptual framework no such particular component was established directly; but of course the conceptual process framework supports problem identification from a fresh mind as a fresh process. This is justified because the first component of the UD process framework at the problem identification stage clearly states that the urban context should be understood from different perspectives leading to the

creation of the story of the place. The phase ‘story of the place’ indicates that problem identification should be begin uniquely in a fresh mind as the story is created for a specific urban entity not for somewhere else therefore, the literature informed key factor has been indirectly represented in the conceptual UD process framework. Additionally, another key factor revealed by the literature at the problem identification stage, describes that locally significant factors should be captured at the problem identification stage by identifying the needs, ideas and knowledge of the community through community views and the views of professional actors. This key factors is similarly matched to the component established in the UD process framework which is established the component ‘understand the urban context from different perspectives-leading to the creation of a story of the place and identify the problems and issues using primary and secondary data before engaging the wider community.’ This component specifically describes the need to capture locally significant factors as it clearly states that the story of the place should be built at this stage. Furthermore, the use of different sources to understand the urban context has been represented in the literature informed key factors and also in the component established. However, the literature describes the use of the community as a data source at this stage, but it does not specifically describe whether it is the wider community or a representation of the community. However, the conceptual framework recommends that only community leaders should be engaged at this stage as it is not easy to conduct successful community engagement without having a story developed by professional actors. As proven, in establishing the process framework, wider community engagement becomes extremely successful when the community is faced with a story developed about the urban environment. Therefore, the literature attribute is slightly modified in the UD process framework recommending the engagement of community representation only at this stage not the wider community.

The next key factor discovered is linked with the urban analysis stage and it is found that the project team should avoid early decisions in the UD process. The sub-factor for this key factor, further describes this proposal and it explains that the project team should make decisions about the urban environment based on the findings from the problem identification stage as may happen if the problem identification has provided a large amount of information about the urban environment. This key factor has been established as a component in the UD process framework developed and represents the exact same proposal. However, the only difference in the UD process framework is this component was identified as the second component at the problem identification stage not as a component at the urban analysis stage.

However, there is no problem with this issue as in the practical world the problem identification and urban analysis stages are more or less interlinked.

The next key factor discovered in the literature review under urban analysis is about conducting an in-deep urban analysis based on ground level facts. The sub-factors aligned with this key factor indicate that it is necessary to consider locally specific conditions about culture, values, identity, existing physical settings etc. in the urban analysis by using data sources such as community members, professionals, local businessmen, secondary data etc. The UD process framework developed has exactly identified this need and it has been represented as a separate component in the UD process framework recognising that locally specific conditions should be assessed in the UD process. This specific component in the UD process framework has been clearly represented by the third component in figure 6.6. However, the exact match for this specific component with the literature informed key factor, further proves the stability of the conceptual UD process framework. The next key factor from the literature review indicates that the urban environment should be analysed based on both subjective and objective elements rather than only relying on the quantified data analysed from secondary data sources. This key factor has been repeatedly identified and resolved by the conceptual UD process framework. The conceptual UD process framework encourages the use of different sources in the urban analysis including at the problem identification stage allowing community leaders, wider community members, professionals, political bodies etc. to engage in the urban analysis. This ensures the urban environment is analysed by using qualitative and subjective information; and furthermore the opportunity which has been provided by the conceptual framework to assess secondary data sources makes sure that the urban environment is assessed quantitatively by using objective data. The next key factor in literature mentions ‘a powerful role should be played by non-designers providing equal opportunities for the community to participate’. This key factor is clearly demonstrated in the conceptual UD process framework as the whole urban analysis stage is open for wider community engagement and they play the most influential role.

The next two key factors in literature are concerned with the vision, mission and strategy generation stage. The first key factor has described that local requirements should be addressed in design solutions by providing decision making opportunities to the wider community. In the conceptual UD process framework wider community engagement has been encouraged and wider opportunities have been provided to the community to actively engage in the strategy generation stage. Therefore, the conceptual framework has solved this

particular need identified by the literature informed key factors, and thereafter, there is another literature informed key factor which mentions that it is necessary to 'avoid clean slate design'. The idea of this key factor, as identified in the sub factor of the key factor, is that it is necessary to complement the existing economic activities in bringing new development solutions and furthermore should avoid the use of a blanket policy in the area avoiding local specific conditions. This requirement has been deeply considered in the UD process by ensuring two things in the conceptual framework. Firstly, by providing wider community opportunities the conceptual framework has ensured that the solutions developed are not clean slate designs and address community needs as those are developed by the community themselves. Secondly, by specifically recommending the integration of the urban analysis into the strategy generation will ensure that the development solutions will complement the existing activities in the area by avoiding the application of a blanket policy to the area.

Finally, for the design development stage one key factor was discovered and it states that the design development stage should be an iterative community based process combined with design theories and principles. Furthermore, the sub-factor of the key factor explains that community design ideas should be integrated with the core design principles. In fact, this is a common idea that many authors promotes for community engagement in urban development. According to them they promote community engagement throughout the UD process without limiting it in certain stages. However, the conceptual UD process framework has discovered this issue and established a component informing that the wider community should be engaged in design development only in certain UD projects based on their skills, ability and enthusiasm. The new conceptual framework has invested authority in the project team to allow them decide whether or not to engage the wider community in design development as well as to execute the design development stage. Accordingly, the conceptual framework has drawn on this particular attribute of literature; however, the use of design principles is inevitably accepted when a group of designers leads the design development stage.

On the whole the researcher can conclude that the conceptual UD process framework has addressed issues and concerns that have been identified by the literature review and has brought forward many new components (as explored in detail in section 6.2) to the new conceptual framework to ensure sustainability in the UD project process.

6.4- VALIDATION VIA EXPERT INTERVIEWS

Research validation is one of the most critical aspects of a doctoral research and increases the robustness and validity of the research outcome which is already to hand. In this section the researcher has validated the UD process framework through an expert panel consisted of 4 professionals who are actively engaged in UD projects in North West England. The researcher has established background information relating to the experts in the section 3.12.1.2 and in this section the researcher seeks to critically evaluate the viewpoints of the experts regarding the developed UD process framework at key stages of the UD process framework.

6.4.1-VALIDATION OF THE PREPARATION STAGE OF THE CONCEPTUAL UD PROCESS FRAMEWORK

The first component established under the preparation stage is the 'formation of a centralised collaborative leader' which relates to investing power in a governing body to initiate and execute the UD process and also to take on final responsibility for the process. Expert 01 agreed with this component and mentioned that the project leader should be carefully selected from responsible parties such as the city council, selected UD companies etc. Expert 02 also concurred with this statement but mentioned UD projects where the leader is a partnership; in such a case the leader should have full authority. Expert 03 also agreed with this but stated that the leader should not be from a community or hold political post as the project team needs to have full access to the project leader. Expert 04 accepted this component without any further comment. Accordingly, the component established is further validated and the researcher is not required to make any changes to the component. However, it is important that the urban design framework should specify, by using an example, which authority can be selected to lead the UD process.

The second component relating to the project leader, which partners should be involved and the formulation of the core project team has also been accepted by all four experts without any further comment. The experts then validated three components together as one inter-linked major component. The first component relates to the need for conducting an initial assessment of, the community, based on information already to hand, in order to understand their educational level and their background; the second component explains that the initial community assessment should lead to the generation of a comprehensive communication

plan which aims to secure the trust of the community. Expert 01 agreed that building trust is extremely important but specifically mentioned that the community should not be consulted at this stage. The other experts expressed similar opinions about the importance of building trust and the need for a comprehensive communication plan in the early stages. However, they all mentioned that the initial assessment and communication plan should be created from the data which is already to hand or by using easily accessible data but that community consultation should not take place at this stage. All the experts agreed that once the communication plan has been developed the project team can inform the community about project and the communication plan. Because the conceptual framework does not propose engaging the community in developing the communication plan there is no need to change the established component.

The next component established describes informing local politicians and political bodies about the plans. This component was accepted by the all four experts but three of the experts felt that this should be done much earlier, in fact, as soon as the project leader or the core project team is established. Experts 02 and 04 stated that by this stage the community is already aware of the UD project, and therefore, if the politicians were to be informed by members of the community they would be extremely disappointed and unwilling to help throughout the UD process. Therefore, the positioning of this component should be changed in the final UD process framework.

Under the general comments for this stage Expert 03 and Expert 04 has stated that it is necessary to clearly identify the proportion of the budgetary allocation has been made for the UD process from the full budget allocated for the UD project. The experts mentioned this specifically because this framework encourages wider community engagement which is quite expensive and therefore it is necessary to have a clear budget plan to forecast what is feasible and what is not in the UD process at this stage. This is an extremely valid point made by the experts; therefore, the researcher will consider altering the final framework to reflect the experts' point of view.

Appendix 'C' presents quotes from the experts for each component and it highlights the issues to be altered in the final UD process framework.

6.4.2-VALIDATION OF THE PROBLEM IDENTIFICATION STAGE OF THE CONCEPTUAL UD PROCESS FRAMEWORK

In the problem identification stage the first component established is understanding the urban context from different perspectives before engaging the wider community. This component was clearly accepted by all four experts without no objections or additional proposals. The only additional comment was made by Expert 01 who stated that consistency should be paramount when selecting different data sources at this stage. However, this is already clearly identified and mentioned in the UD process framework. Experts 03 and 04 were highly appreciative of the fact that wider community consultation should take place with a story ready rather than consulting them with no information to hand.

The second component which is 'avoid early decisions' was accepted by Experts 03 and 04 while Experts 01 and 02 did not mention any particular difficulty with this component. However, Expert 02 suggested assimilate this component as a sub-factor in a major component rather than making it a separate component. Accordingly, the researcher will decide whether to leave it as a separate component or incorporate it into another component in the final framework. However, the researcher believes that this component should be highlighted separately as a component in the UD process framework to ensure that the project team does not make decisions too early. Appendix 'C' presents the ideas from the experts for the validation.

6.4.3-VALIDATION OF THE URBAN ANALYSIS STAGE OF THE CONCEPTUAL UD PROCESS FRAMEWORK

The first component established under this stage is an in-depth assessment of previous work. All four experts accepted this component but Expert 01 specified this can be done using a focus group from the community rather than engaging the wider community. He mentioned it specifically in consideration of the financial concerns in the UD project process. The second expert accepted this without any further comment; the third and fourth experts have stated that this should be designed very carefully by the core project team in order for this to be effective and also to ensure that the objective for doing this task in the UD process is achieved. However, this kind of previous work assessment in a UD process framework was appreciated by all the experts.

The next component validated by the experts was the 'assessment of story previously created by wider community leading to a detailed analysis'. Engaging the community was accepted by Expert 01 in order to conduct an in-depth assessment but he believes that this should be done by a focus group that is representative of the wider community rather than engaging the whole of the community. According to Expert 01 some UD projects are on a small scale and impact is small, therefore, the cost of engaging the wider community exceeds the value of the impacts. However, in general Expert 01 supports focus group community engagement. His idea has validity as for some small scale UD projects wider community engagement may be disproportionate to the benefits which will be accrued by the project; therefore this proposal should be considered when finalising the UD process framework. The other experts were concerned about the effectiveness of wider community engagement at this stage. All of them stated that the success of wider community engagement is dependent upon the tools and techniques used in consulting them and also how carefully the core project team plans wider community engagement. Therefore, this idea provides a key point which necessitates alteration to the UD process framework; there should be a specific point at which the tools and techniques for effective planning for wider community engagement are considered. However, the tools and techniques used in community engagement are separate issues that need concentrated evaluation, therefore, this process framework is not able to guide the project team about the tools and techniques to be adopted in community engagement; although, this process framework should provide a specific point which recommends that the core project team needs to develop a set of tools and techniques for community engagement. However, this was accepted, by the experts as a component in the final framework; especially Expert 03 and 04 who stated that this change in the UD process in necessary in order to develop sustainable urban designs.

The next component established concerns the assessment of specific features in the UD process, such as, history, identity of the area etc. This component was accepted by the all four experts although Expert 01 expressed doubts about using the wider community and suggested that a focus group from the community would be more appropriate. Expert 02 stated it is good point to be considered in the UD process and Experts 03 and 04 mentioned specifically that this component is essential in UD process framework. Accordingly, this component was validated by the experts.

The next component, re-assessment of work by the wider community prior to finalisation was rejected by all 4 experts without any further clarification. All the experts accept the fact

that the work should be reassessed before finalisation, but not by consultation with the wider community. The experts proposed that this task should be undertaken by the project team or by a selected group of community members. The experts' view has strong validity, re-assessment by the wider community may have a strong impact on the cost of the process and may not be result oriented as the same set of people are re-assessing the work; also, this may not be of interest to the community. Therefore, this component should be modified in the final framework.

The final component under this stage is, 'finalisation of the analysis by the project team or the project leader', and was accepted by all the experts without any further comments.

Finally, under general comments about this stage, Expert 01 further stated rethinking the engagement of the wider community or a selected focus group of community who are keen to engage in this stage. The reason for this idea is the cost and the effectiveness. Accordingly, it would be better if there is particular step where the project team decided whether to engage the wider community or selected community engagement depending on the nature of the project. However, focus group community engagement should not become common practice in a UD process it should be done for a specific reason depending on the nature of the project.

Appendix 'C' presents the viewpoint of each expert for each component and reveals the potential influence that the experts' point of view can have on amendments to the conceptual UD process framework.

6.4.4-VALIDATION OF THE VISION MISSION & STRATEGY GENERATION STAGE OF THE CONCEPTUAL UD PROCESS FRAMEWORK

The first component under strategy generation was accepted by all four experts. The component deals with 'identifying the limits and boundaries of the development' at the beginning of the strategy generation stage in order to give the community a clear idea of what strategy generation means. Expert 01 has stated it is better to do this so that the community focus on strategy generation in the same way as they focussed on the project. Expert 04 also mentioned that it is good to let the community know the exact focus of the project. While Expert 03 agreed that Expert 02 had raised a very important issue. Expert 02 stated:

'I think this need to be done at the beginning. Inform the community about the scope of the project at the earliest point you contact community, but it's good to recall it before beginning this stage'.

The proposal from Expert 03 points out the need for scoping the project to the community at the beginning of the process. However, none of the experts reject the established component but in the final framework some alteration is required regarding the positioning of the component that would make it more viability in the final framework.

At the validation more criticism was received about the component 'Avoid pre-developed visions; provide participatory opportunities to the community to develop a vision for themselves'. Expert 01 stated in order to match the community expectations with the expectations of the project team the vision and mission should be developed by the project team and not by the community. Supporting expert 01 but not fully agreeing, Expert 02 stated:

'It is difficult to go to a community without something to consult on even if it is a draft or something. So better to have a developed vision or even some visionary ideas, but it doesn't mean it cannot be changed according to the community views.'

According to Expert 02 the project team should approach the community with a draft vision which could be altered to reflect the views of the community but not necessarily developed by the project team as proposed by Expert 01. However, Expert 03 has agreed that the community should develop a vision for themselves rather than project team doing it. Expert 04 does not completely refute the idea of the community developing a vision for themselves but he states that it's difficult and time consuming therefore, he suggests approaching the community with several visions and allow the community to select the final vision. This idea is similar to that proposed by Expert 02. However, the proposals from the experts indicate that it is necessary for some alteration to this component in the final UD process framework.

The experts commented on the next two components together, they inform the community about engagement in strategy generation for identified problems and issues. As Expert 01 describes, he definitely agrees with the component to engage the community in strategy generation, but proposes that a focus group from the community is used rather than engaging the wider community. Expert 02 believes that the wider community should be consulted with the help of a draft plan which could be discussed and changed to reflect the

community's feelings. However, Experts 03 and 04 agreed with this component and Expert 03 has clearly stated this is the new move in the UD process. The statement of expert 03 is as follows:

> *'This is what we don't do but we should engage them, we should give them the opportunity to link the analysis and develop solutions by themselves. This is a new move for urban design'.*

As stated above, Expert 04 does not reject the established component, his proposal was that this should be done in the UD process but the project team should have specific skills to manage community engagement without making the process vulnerable. Furthermore, he states that this part of the component could be outsourced to an expert group in community consultation.

On the whole, the researcher is able to accept the component but certain aspects should be considered, in the final framework, regarding wider community engagement based on the comments from the experts.

The next component which discusses not limiting the strategy generation to identified issues only has also received criticism from the experts. Expert 01 has stated it is good in principle but should not offer extra hope to the community in case there is no budget for any additional work. Furthermore, he has stated this should be done by a focus group not by engaging the wider community which is his general feeling about wider community engagement. Expert 02 also expressed similar ideas to those of Expert 01. While Expert 04 just made a general comment saying 'that's ok', expert 03 was highly appreciative but even he mentioned budgetary concerns. He stated:

> *'Good idea, because I believe this maximises the effectiveness of the UD project by linking other potentials in the area for the development, but should rely on the budget we have'.*

Based on the experts' views the researcher may have to make some alterations to this component in the process framework.

The next component 'forecast the outcomes of the intended development' was accepted by all four experts although minor alterations were suggested for the component. According to Expert 01:

'It's a good component to do because if the project team reports their outcomes of the proposals the community will be disappointed; but if they report what the community has forecast it will not create conflict'.

Expert 02 also agreed with the component but she has stated it would be better to find out in advance whether the community had the ability to do this. Supporting Expert 02, Experts 03 and 04 also accepted this component but felt that the project team should strategically design this action. As Expert 01 suggested, Expert 03 also suggests that a focus group would be more appropriate than engaging the wider community. Based on these opinions the researcher may need to make some alterations to this component in the final framework even though the component is accepted on principle.

The experts accepted the next two components which are 'management of conflict' and 'maintaining equity by the project leader or the core team'. However, Expert 04 made a good point in suggesting that a similar component should also be introduced at the urban analysis stage.

Consultation with the academic community is an optional component that was accepted by all four experts. They all mentioned that, based on the nature of the project, some academic input may be needed but need not necessarily to be adopted for all UD projects. However, Expert 01 stated that rather than engaging the academic community in the process it would be better to involve them to train the project staff whenever required.

The next component established 'technical inputs and ground level implementation issues for contractors, developers etc.' was also accepted by all four experts on principle. However, Expert 02 stated this should be done as an ongoing procedure throughout the process not just at this stage. Expert 03 noted this is extremely important especially when the community is engaged because community members are not aware of technical matters and there should be a party to provide input relating to technical aspects; he stated this should be transparent to the community. Whilst agreeing to the component Expert 04 said it should also be linked to the design development stage. However, based on all the above facts the researcher can conclude that the component is firmly established but needs to be re-positioned in the final framework.

Thereafter, all four experts accepted the finalisation of the strategies by the core project team without adding any further comments.

Finally, under overall comments, the experts did not mention any other specific alterations than those discussed under each component. Appendix 'C' presents quotes from each expert for each of the component established for this stage.

6.4.5-VALIDATION OF THE DESIGN DEVELOPMENT STAGE OF THE CONCEPTUAL UD PROCESS FRAMEWORK

The first two components established under the design development stage recommended an assessment of the willingness of community members, based on their participation throughout the process and using the skills assessment done at the preparation stage, in order to decide whether or not to engage the community in the design development stage. Furthermore it is recognisd that if the community is willing and has the ability to engage in design development then some potential design ideas could be obtained from the community and failing this the core project team should complete the work without community engagement. However, Expert 01 specifically mentioned that the community should not be engaged in this stage at all because the community is not educated or technically trained to provide design solutions. The same issue was raised by Expert 02 and in addition he added that it is also very expensive. Expert 03 approved the component in its current form in the conceptual UD process framework stating that the core project team should first decide whether or not to engage the wider community in this stage. Expert 04 also mentioned it's better for the core project team to decide but his personal feeling is that it's not ideal to engage the community in this stage.

The next component which is about showing the final product to the community has been accepted by all four experts. However, the sub-feature that recommends the final product should be show in a 3D version received different comments. In principal all four experts accepted this component but three of them said it would be very expensive to do 3D model of the final work. However, Expert 03 stated it is not expensive but is a matter of whether the core project team should has skills to do it. Expert 03 makes a valid point as with today's technological innovations these things can be done inexpensively by using any 3D designing software and the community can be shown a soft version which avoids the unnecessary cost of producing hard 3D models.

Finally, the last component in this stage and also in the process is about finalisation of the product once it has been shown to the community. The process framework has invested full authority in the core project leader to undertake the finalisation of the product. This was

accepted by all four experts but Experts 03 and 04 raised an extremely important point. They stated that at this point only those individual from the community who have been engaged throughout the process should be allowed to participate; it would be inappropriate if any community member, who has never participated before, became involved in the finalisation of the product and was allowed to comment on the whole process; this would be valueless and devalue the community engagement that ensued throughout the process and it would incur more expenditure.

Appendix 'C' presents the set of expert views for this stage.

6.5-THE FINAL CONCEPTUAL FRAMEWORK

Based on the experts' validations the researcher has finalised the new conceptual UD process framework which enhances sustainable urban design on all three counts. In section 6.4 the researcher validated the conceptual framework under the five stages of the UD process which were represented in sections 6.4.1 to 6.4.5. In some sections possible alterations were revealed for particular stages in the UD process and also some sections provided possible alterations for other stages of the UD process confirming the relationship of the components in each stage. Accordingly, the researcher will present the next sections using the theme of 'alterations identified from each stage to the final framework' not 'alterations identified for each stage of the final framework'.

6.5.1-ALTERATIONS IDENTIFIED FROM THE PREPARATION STAGE TO THE FINAL FRAMEWORK

Most of the components established in the preparation stage have been accepted by the experts without any additional comments. However, there were few points made by the experts that are extremely important and that would add more validity to the UD process framework.

Accordingly, in component relating to the formation of a leader and based on the experts opinion it is necessary to clarify exactly what is meant by formation of a leader. This refers to investing power and authority to one particular body for them to execute the UD process. In many UD projects the authority instituting the project, such as, the city council is the

project leader but there are some instances where the city council outsources this responsibility and a different project team carries out the UD process and on occasions a private UD company is given the opportunity to carry out the UD project. This component specifies that once the project is transferred to a different project team, or to a private UD company, there should be a central leader or authority appointed to make decisions rather than devolving powers to different parties. As the experts have stated, the project leader should be easily accessible to the project team and should not be a community leader or from a political body.

In addition the experts specifically mentioned the position of the component 'inform and make local politicians aware of the project'. According to the experts this component should positioned as one of the foremost component in the UD process because politicians need to be aware of the UD project before members of the community to avoid the local politicians having to answer questions about an issue they are totally unaware of. This is an extremely valid point made by the experts therefore the researcher has repositioned this component as the second component in the UD process and means that as soon as the project leadership has been formulated the project leader should inform local politicians about the UD project which is going to take place.

In the general comments Experts 03 and 04 stated that a new component should added to the UD process framework recommending that discussions take place about budgetary allocation for the UD process from the total budget of the urban design project. Generally, in a UD project the budget allocation is fixed, and therefore, it is necessary to be clear about the budget for the UD process and then to decide the amounts can be allocated for the each stage of the UD process. Community engagement is costly and time consuming therefore it is necessary to decide what can or cannot be undertaken in the process at the early stages of the UD process. Taking this fact into consideration the researcher has added a new component 'develop the financial plan for the UD process' and because this should be done as early as possible the researcher has added this component after 'decide the core project team' so that as soon as the core project team is established the first duty of the core project team would be the development a financial plan for the UD process. Accordingly, these changes will be added and will be represented in the final conceptual UD process framework.

6.5.2-ALTERATIONS IDENTIFIED FROM THE PROBLEM IDENTIFICATION STAGE TO THE FINAL FRAMEWORK

In section 6.4.2 the researcher did not identify any potential alterations to be carried out for this stage nor did this stage provide any new alterations for the final framework. The only concern expressed by one expert was that the component 'avoid early decisions' should be linked as a sub-feature to the component 'understand the urban context from different perspectives'. But the researcher has decided to keep the component 'avoid early decisions' as a separate component because it makes more sense when it is presented as a separate component rather than a sub-feature linked to another component.

6.5.3-ALTERATIONS IDENTIFIED FROM THE URBAN ANALYSIS STAGE TO THE FINAL FRAMEWORK

The experts provided many important opinions for altering the process framework at this stage. The first component the researcher established 'conduct a deep assessment of previous work' has been accepted by the experts as a necessary component. However, they mentioned that it is not viable using the wider community for three very valid reasons; cost, time limitation, and effectiveness. Three of the experts stated that this assessment is probably more practicable using a focus group rather than engaging the wider community. Firstly, because this process framework allows wider community engagement on many occasions and the community may lose interest in participating if they have to be available to participate on too many occasions, and secondly, organising too many wider community engagement workshops is costly and time consuming. On the other hand because the framework proposes conducting an in-depth assessment of previous work through professionals who were engaged in previous development work, and also through published documents plans etc., the community will be only one party in this assessment, therefore, rather than engaging wider community at this stage it is better to do this assessment with the community leaders in line with the component 'understand the urban context from different perspectives'. Therefore, in the final framework the researcher has changed wider community engagement in this component to engagement of community leaders and has linked this with the component 'understand the urban context from different perspectives'.

Expert 01 made an extremely valid point regarding the next component 'assessment of story previously created by the wider community leading to a detailed analysis.' As he has stated

some UD projects are small in scale and their impact is lower, therefore if wider community engagement is planned for such projects the cost of consultancy may exceed the impact made by the project. Therefore, he suggested community engagement in the form of a focus group community representing the wider community but not engaging wider community. His suggestion was that, in general, a focus group should be engaged for all community consultations in the UD process, however, the researcher has arranged this slightly differently, in that if the project scale is extremely small and if the project impact is extremely low then the core project team should take the decision to engage a focus group representing the wider community rather than engaging the wider community for all the UD projects regardless of the impact and scale. Therefore, the researcher has linked this with the preparation stage of the UD process recommending that the core project team can make a decision about this at that stage and develop a comprehensive communication plan based on whether to engage the wider community or a focus group representative of the community. However, if a focus group is engaged at this stage the project team should be very careful and honest in deciding their selection of a focus group in order that it represent the whole sample of the community rather than allowing only a supportive group from the community.

In addition the experts elaborated that the most important thing about community engagement is the effectiveness of the community consultation. Therefore, a range of community engagement tools and techniques should be adopted in order to make sure the consultation is effective. To achieve this, the researcher suggests adding a sub-feature to the component ‘develop a comprehensive communication plan’ at the preparation stage to decide the specific tools and techniques to be adopted for the community consultation process in order to ensure the process effective. However, tools and techniques for community engagement is another specific and unique subject area which should be researched separately. Some findings from the research particularly those relating to community engagement tools and techniques may be connected to this component in order to provide deeper meaning to this component. However, this process framework can only inform the need for effective planning of the tools and techniques for community engagement at the preparation stage in the development of a comprehensive communication plan.

The next component for assessment of locally specific conditions was firmly established by the experts, however, it should be linked to the previous component ‘community

engagement in urban analysis' as this component is a part of urban analysis and just notifies specific features to be assessed for an in-depth urban analysis.

The component 're-assessment of work before finalisation' was accepted as a component but the experts recommended that the wider community should not be engaged due to implications of time, cost and effectiveness. The researcher accepts this change recognising that it would be extremely expensive and costly to engage the wider community once again to finalise the urban analysis. Furthermore, this may not be advantageous as they would be reassessing their own work and it would be more effective for an independent party to do this. Therefore, the researcher proposes that this component should be undertaken by community leaders which will save time and money and will make the process more effective. More importantly, the community leaders who participated in previous stages to create a story of the area can be utilised for the reassessment of work.

The next component which is about finalising the urban analysis by the core project team was not altered in the final framework and, accordingly, the above mentioned changes will be represented in the final conceptual UD process framework under the urban analysis stage.

6.5.4-ALTERATIONS IDENTIFIED FROM THE VISION, MISSION &STRATEGY GENERATION STAGE TO THE FINAL FRAMEWORK

The component 'identify the limits and boundaries of the development' was not changed in the validation process and remains the first component in this stage. However, as Expert 02 has suggested the researcher has also added this component to the urban analysis stage. Expert 02 recommended adding this component to the urban analysis stage to ensure that the urban analysis is properly scoped when engaging the wider community. Accordingly, the new component is added to the urban analysis stage before the process is opened to the wider community. This means the component is positioned after the component 'deep assessment of previous work'.

The experts were highly critical of the component 'avoid pre-developed visions; provide participatory opportunities to the community to develop a vision for themselves'. The experts clearly accepted the need for obtaining community views but they rejected the idea of approaching the community without having any developed a potential vision. As the

experts stated, if that happens it is difficult to align community expectations with the project team's expectations because the community may not be able to actively participate in the development of a community vision when they are consulted without even having a draft vision for reference. However, the proposal mentioned by Expert 04 makes more sense; which is to consult the community using several draft versions of the vision, allow them to comment on the draft versions and, using this process as a platform, to finalise a vision for themselves. Therefore, the researcher has changed the component to 'develop several visions and provide participatory opportunities to the community in order to alter or change the developed visions and to finalise a vision for themselves'.

The next two components which are about engaging the wider community in strategy development for identified urban issues has been altered to reflect the alterations made at the analysis stage regarding community engagement. As in the analysis stage, if the project is extremely small and the impact is lower this can be by engaging a focus group from the community which represents the wider community. However, in a similar way to the component in urban analysis stage, this should be decided by the core project team at the preparation stage when they develop the comprehensive community communication plan. This component is also linked to the previous component so that if the engagement is limited to focus group community engagement, development of the vision should also be undertaken by the same focus group.

The next component which is about not limiting strategy generation to identified issues has been slightly changed as per the experts' comments. As the experts stated this should be done within the scope of the project budget because if additional strategies are not feasible within the project budget it will ruin the trust between community and the project team. Therefore, the researcher has added the phrase 'within the project budget' to this component in the final framework.

The next component which is about forecasting the outcomes of the intended development by the community itself did not require any significant changes but as the expert suggested the effectiveness of this should be designed by the core project team. Therefore, the researcher has linked this with the tools and techniques development for community engagement at the preparation stage.

The next two components about management of conflicts and managing equity by the project team have not been changed in the final framework, but as Expert 04 recommended the researcher has also added this component to the urban analysis.

The optional component for consultation with the academic community remains unchanged in the final framework but the following component which is about obtaining technical inputs from developers, contractors etc. in the strategy generation stage has been altered based on the view point of Expert 02 who stated that this component is applicable throughout the process. However, the researcher re-positioned this component to be applicable throughout the strategy generation phase but not applicable throughout the processes as at the urban analysis the issues are diagnosed and the need of technical inputs is not needed.

The next component of finalisation of strategies by the core project team has been accepted without any further change to the final framework. Accordingly, each change that has been discussed will be represented in the final framework.

6.5.5-ALTERATIONS IDENTIFIED FROM THE DESIGN DEVELOPMENT STAGE TO THE FINAL FRAMEWORK

The first two components for this stage describe the role of the community in design development; the conceptual UD process framework establishes the component for investing power in the core project team to decide whether or not to the engage community in design development, however Expert 03 recommends not involving the community in this stage and to leave it for the core project team to undertake. However, one expert appreciated that the component should remain as it is in the current UD process which allows the core project team to make the decision about community engagement at this stage. However, the researcher decided not to change this component because as Expert 03 stated there may be some instances where community engagement at this stage is beneficial. The power to engage the community or not is already in the remit of the core project team, which is similar to the opinion of three of the experts. However, on the whole, community engagement at this stage is not ideal but the core project team should have the authority to make a decision depending on the nature of the project, the budget available, enthusiasm and willingness of the community to engage and also on the ability of the community.

Even though the component ‘community needs to see the final product’ is accepted by all the experts some experts expressed concern about showing the final product in a 3D version

have due consideration to the cost; but as expert 03 mentioned it is not just a matter of finance but of the skills of the project team to produce 3D plans, therefore, the researcher finalised the component without making any changes.

The next component ‘finalisation of the work by the core project team or the leader’ has been accepted by all of the experts but the researcher has adopted the point made by Experts 03 and 04. They mentioned that the final community engagement should be limited to those community members who have participated throughout the process; new-comers to the engagement may offer totally different solutions which would ruin all the good work that has been achieved throughout the process. Therefore, the researcher adopted this comment for the final framework which is; ‘to limit final community participation to community members who have participated in the previous stages. Strangely however, this cannot be done at this point as it may create many conflict between the community and the project team, therefore, the community members should be appraised of this condition at the beginning of the community engagement process, and therefore, this should be clearly stated and delivered to the community at the preparation stage when the comprehensive community consultation plan is prepared. Accordingly, this change has been added to the final UD process framework in the preparation stage.

At this point the researcher has finished development of a new urban design process framework to create sustainable urban designs and in the following figures the researcher has presented the final framework. Six figures are presented in accordance with the key stages of the UD process in order to ensure the visual clarity of the framework. However, two figures presented for the stage entitled vision and strategy generation stage in order to ensure the visual clarity.

Figure 6-10- Final UD process framework-Preparation stage

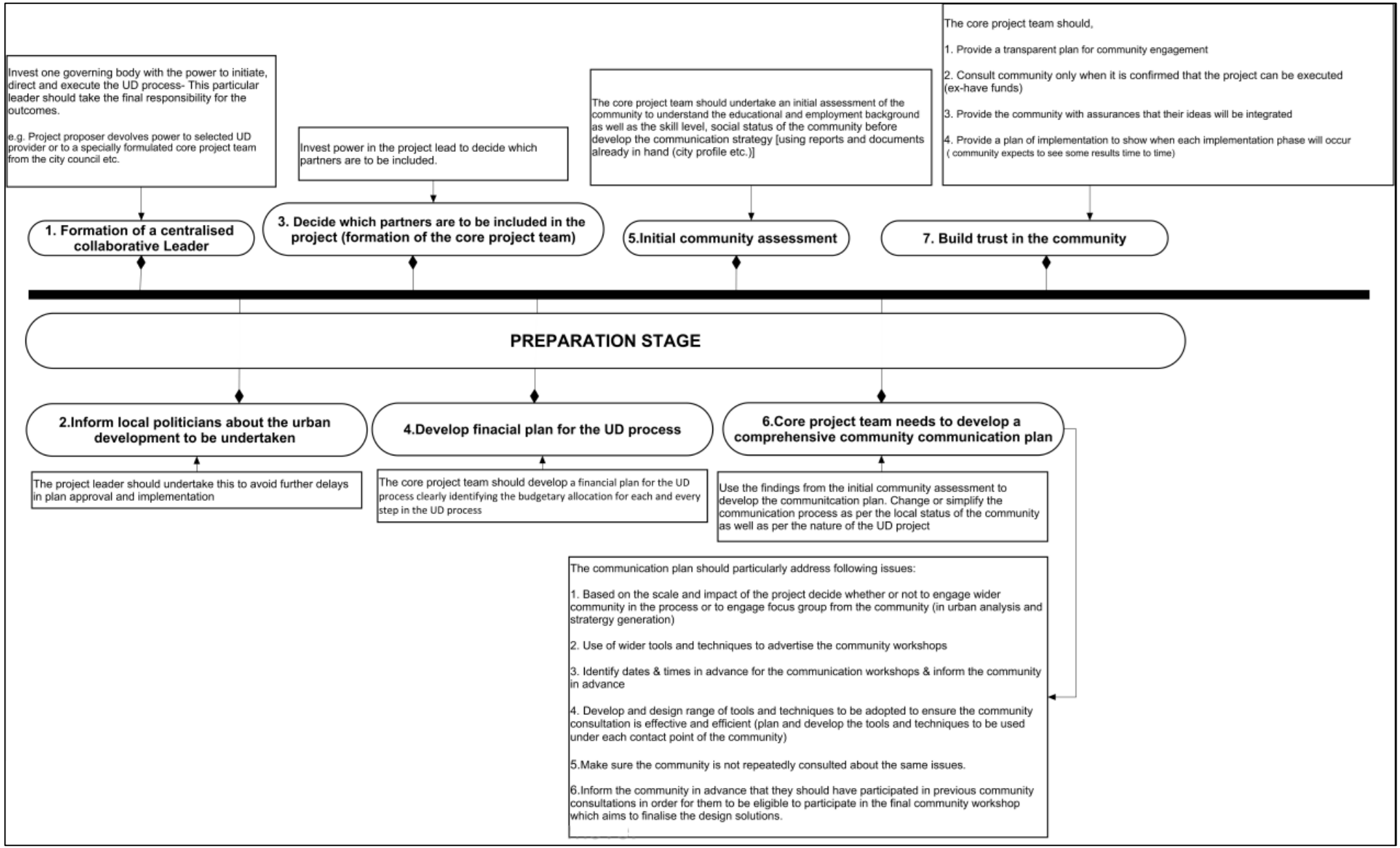


Figure 6-11- Final UD process framework-Problem identification stage

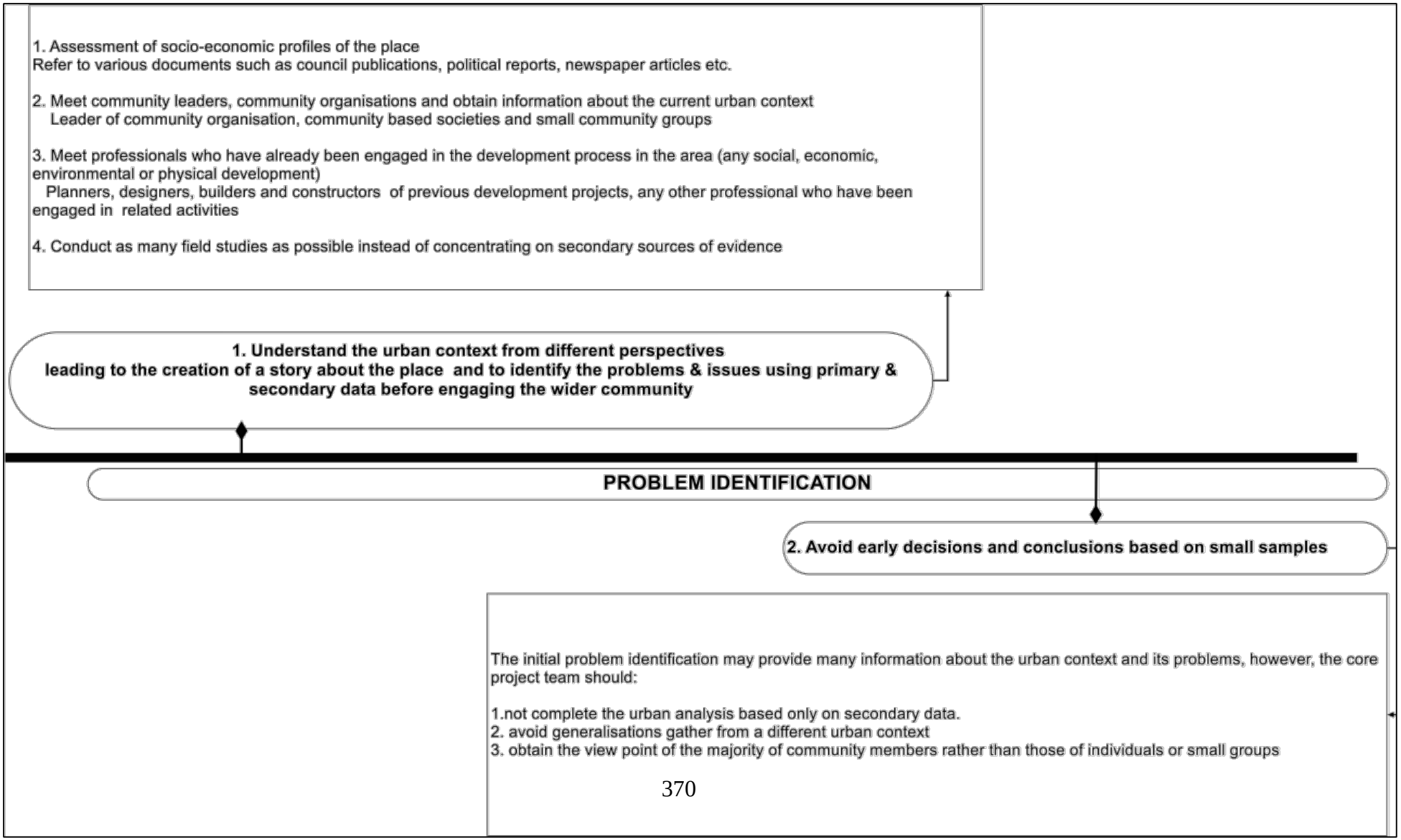


Figure 6-12- Final UD process framework- Urban Analysis stage

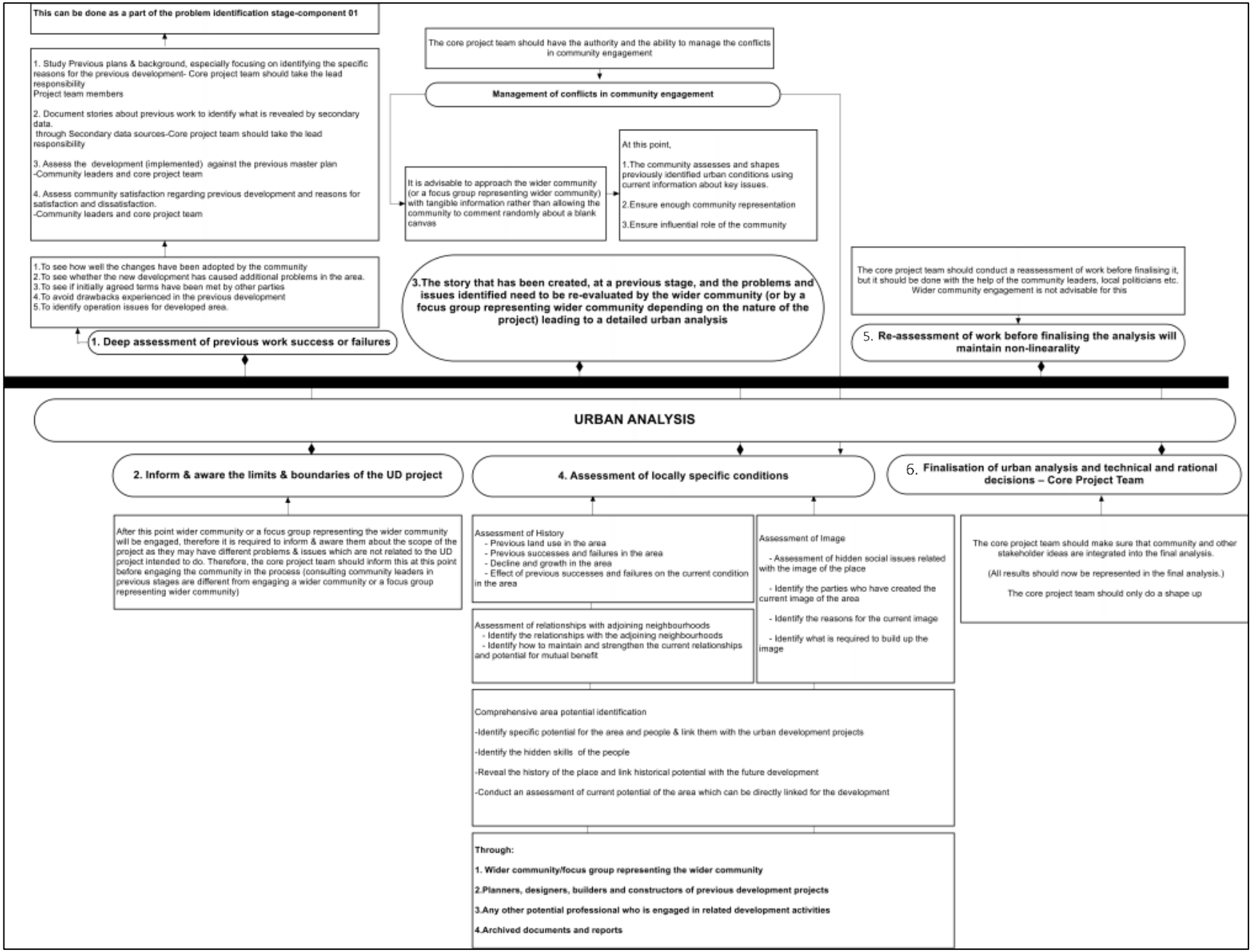


Figure 6-13- Final UD process framework -Strategy generation stage-part 01

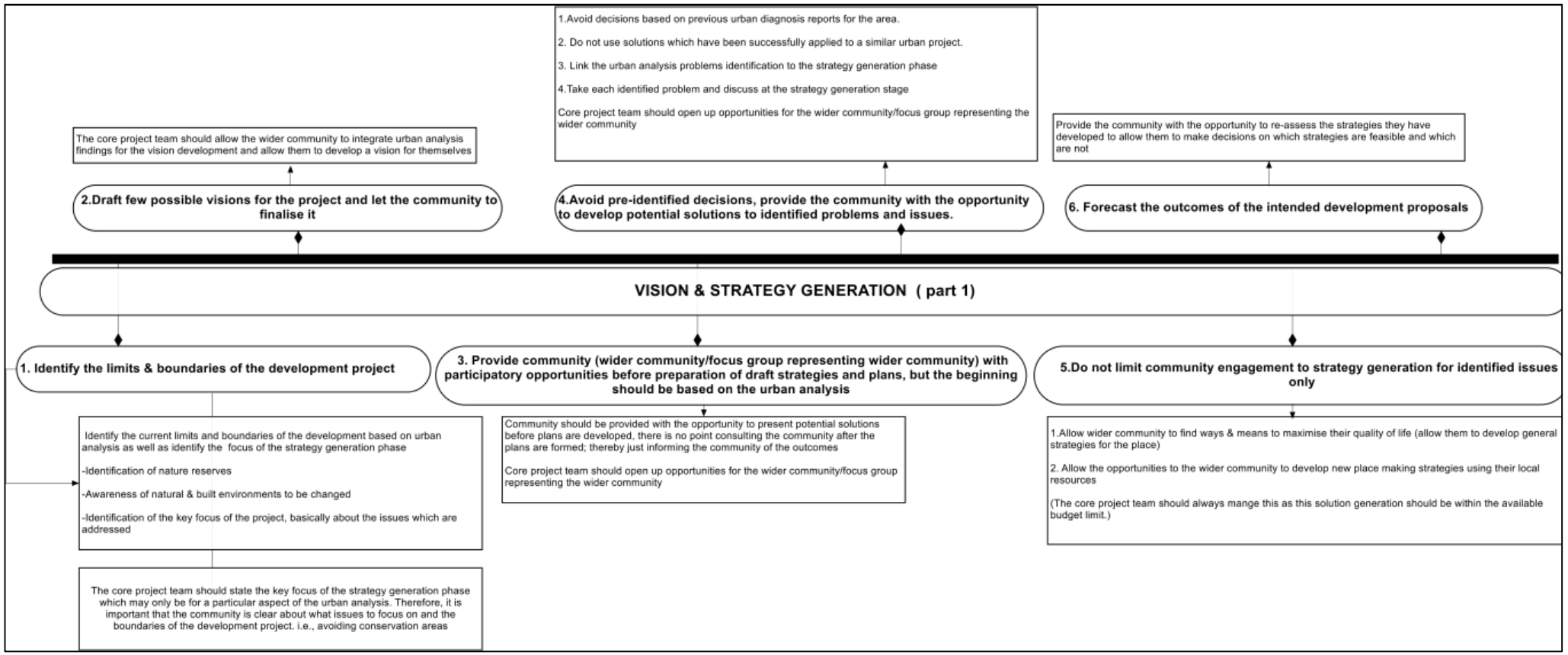


Figure 6-14- Final UD process framework- Strategy generation stage-part 02

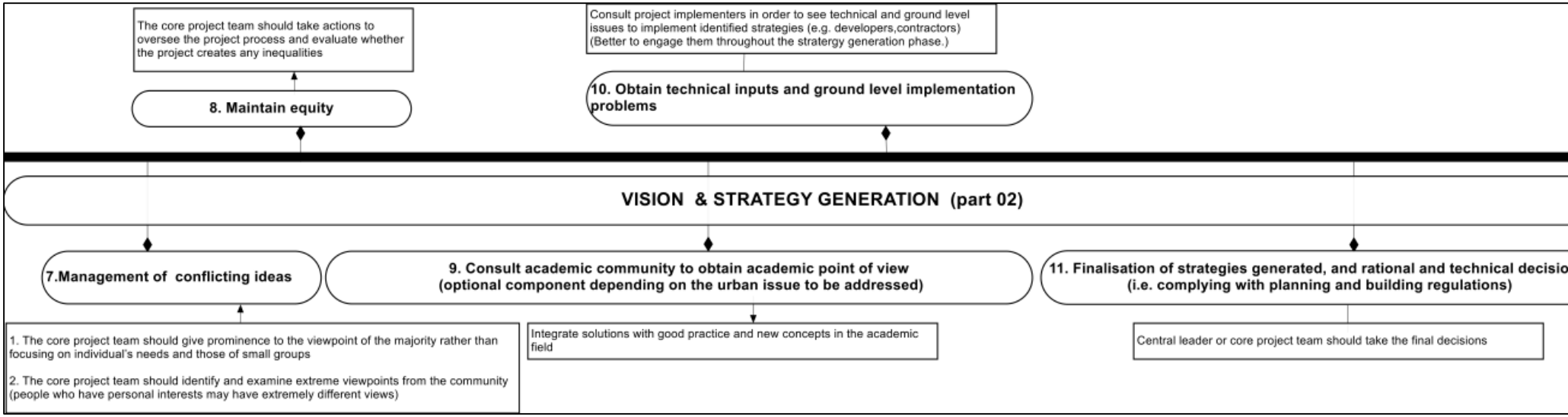
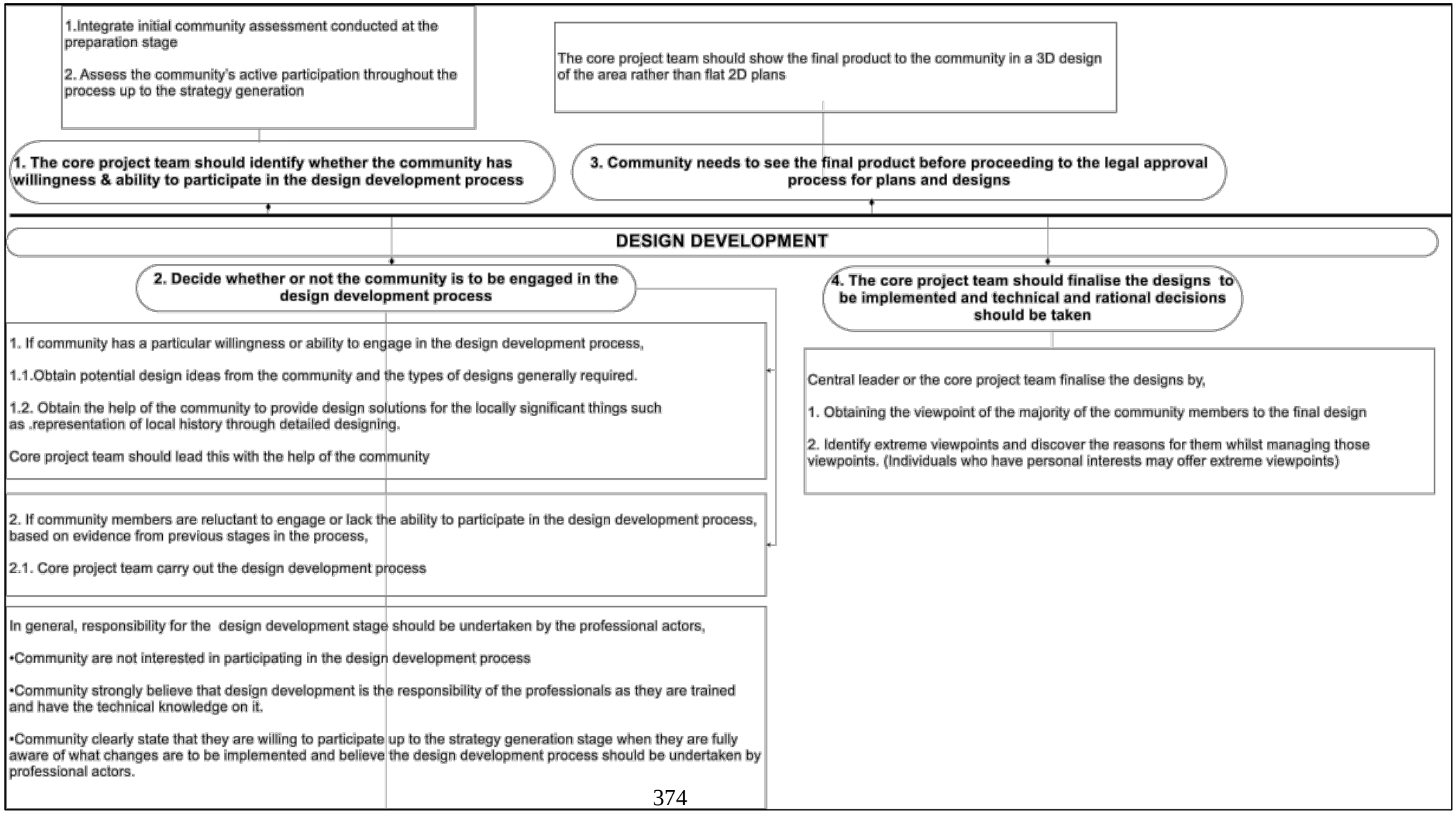


Figure 6-15- Final UD process framework-Design Development stage



6.6-SUMMARY OF THE CHAPTER

This chapter is mainly involved with establishing the final UD process framework. Accordingly, the first few sections of the chapter established the conceptual UD process framework based on the findings from the two initial conceptual frameworks. Thereafter, the framework was critically examined along with the literature findings to ensure the robustness of the conceptual UD process framework. The firmly established conceptual framework was validated by experts in the field of urban design in order to assess the viability of the conceptual framework for use in urban design projects. Finally, based on the experts' opinions, the framework was further shaped and developed to create the final new UD conceptual framework which enhances sustainable urban designs.

Chapter 7 CONCLUSIONS

7.1- INTRODUCTION

The previous three chapter presented the research findings through the analysis of case studies. This chapter provides conclusions and recommendations.

- First, the initial research problem and the research objectives for the study are revisited.
- Second, a summary of key findings is given.
- Third, contributions of this research to theory and practice are articulated.
- Finally, the limitations of the research and further research areas emerging from this study are given.

7.2- SUMMARY OF RESEARCH PROBLEM AND RESEARCH OBJECTIVES

The background for this research was formed by considering the constant failures of the current top-down urban design process to achieve the current scope of urban design which is sustainability on all three fronts; social, economic and environmental. Therefore, it was initially identified that there was a need to replace the current top-down urban design process and introduce a more community based bottom-up process. However, in justifying the research it was also discovered that many authors have argued that pure bottom-up processes are not effective and still may not help to achieve the scope of urban design as the process receives minimum input from a professional perspective. Therefore, it is necessary to develop a combined urban design process framework which merges the top-down and bottom up urban design processes. Accordingly, the researcher established the following research aim for the study, and based on the aim, the research objectives were developed.

The aim of the research was:

To develop a new community embedded and balanced urban design process framework to replace the current, standard top-down process to produce sustainable urban design solutions in a neighbourhood context.

Based on this research aim the researcher developed the following research objective,

1. To identify and inquire the origin and development of urban design and its scope

2. To identify and study the current urban design process and suggestions for a bottom-up urban design process
3. To identify the key factors of the current UD process to successfully achieve the current scope of urban design
4. To study and employ the regenerative design process in an UD context to find out the key factors of a bottom-up process to successfully achieve the current scope of UD
5. To develop a new conceptual UD process framework to achieve the current scope of urban design based on the prospects and constrains identified in both top-down and bottom-up processes
6. To validate the conceptual framework via experts and finalise the new urban design process framework

The next section summarises the key results of this research, based on the research objectives and the research problem highlighted above.

7.3- SUMMARY OF KEY RESULTS

7.3.1- OBJECTIVE 01

Identifying the origin, development and the scope of urban design was the first objective of the study. This objective provided the background for the researcher to scope the research study. The researcher's intention was to develop a new urban design process framework, and therefore, the researcher needed to identify exactly what is meant by urban design and what's the current scope (role) of urban design.

In order to identify exactly what is meant by urban design, the researcher wanted to explore two key issues which were how urban design originated and developed throughout the time, and the difference between urban design and urban planning. The researcher achieved this objective through a literature review and found that urban design originated as a separate profession in the 1950s and its original intention as a profession was city beautification. Furthermore, the researcher was able to differentiate urban design from urban planning even though the researcher identified similarities between the two professions. Achievement of this objective guided the researcher in focusing the study particularly on the development of a framework for urban design. The findings related to the accomplishment of this objective are stated in section 2.2 and 2.3.

The second purpose of the objective 01 of the research was to inquire into the current scope of urban design. This is one of the key aspect which directly influenced the development of a new urban design process framework. The researcher identified the research problem by considering the implications of the current process of urban design in its bid to achieve the current scope of urban design. Therefore, an in-depth understanding of the current scope of urban design was required. The researcher achieved this objective through a comprehensive literature review.

Accordingly, the researcher critically evaluated seminal work on urban design focusing on understanding how each seminal work has contributed to the development of the current scope of urban design and how the scope of urban design changed and developed over the time (section 2.4). Based on the findings from the critical review of literature synthesis, it was revealed that urban design has had three different traditions (scopes) from its beginning up until today's context. The three traditions (scopes) are; the visual artistic tradition, social usage tradition and sustainable urban design/place making tradition. The following sub section briefly describes the influential characters in each tradition and how their influence has affected the build-up of the current scope of urban design.

7.3.1.1- Visual artistic tradition

Visual artistic tradition considered the scope of urban design to be city beatification. This tradition was introduced with the identification of the need for a separate profession called urban design. This tradition was influenced by the proceedings from the 1956 conference on urban design at Harvard Graduate School. According to this tradition the designers tended to increase the aesthetic value of cities by creating beautiful places. However, authors like Kevin Lynch and Jane Jacobs criticised this visual artistic tradition which led to the scope of urban design changing to social usage tradition.

7.3.1.2- Social usage tradition

The pioneers of the introduction of social usage tradition are Kevin Lynch, Jane Jacobs, Norberg Shulz etc. The social usage tradition was popular in urban design during the time period between 1960s and 1980s. The social usage tradition emphasises the way in which people use and colonise space. This tradition considers how people perceive places and remember places, use of sidewalks etc. The main concern of this tradition was to ensure urban places are remembered by people and used as city landmarks. When compared with the visual artistic tradition (scope) the tradition (scope) of social usage focused on more

urban issues. The initial city beautification scope of urban design merely tried to deliver aesthetically sound places without considering how people would use it or remember it or perceive it. However, this tradition was further developed to the next level which focused on the need to create urban places which are perceived, used and remembered by people.

7.3.1.3- Sustainable urban design/place making tradition

The sustainable urban design/place making tradition is the newest and current tradition (scope) of urban design. With the influential movement of New Urbanism in late 1980s the tradition (scope) of urban design gradually changed into sustainable urban design/place making. There are many influential works which directly contributed to the development of this scope in urban design. This scope particularly considers the creation of sustainable places in urban entities. Initially, this tradition mainly considers the conversation spaces into places referred to as the 'place making' process which was gradually developed into the creation of sustainable urban places on all three fronts; social economic & environmental sustainability. Accordingly, in today's context the aim of an urban design project is to deliver a sustainable place which is socially, economically and environmentally sustainable.

Identifying the exact scope of urban design was the purpose of the second objective, accordingly, the findings for this objective led to the identification of the current urban design process, which is the next objective, and which attempts to discover the implications of the current process in achieving the current scope of urban design.

7.3.2- OBJECTIVE 02

The second objective was to identify and study the current urban design process and suggestions about the bottom-up urban design process. The researcher mainly achieved this objective from the literature review (detailed in section 2.5) in six key sections which are explained below;

7.3.2.1- Stages in an urban design process

The researcher initially studied the standard stages in any urban design process whether the process is top-down or bottom-up. It was extremely important to identify these standard stages before evaluating both top-down and bottom up processes as it provides guidance to allow the researcher to frame the literature review, and especially, to frame the empirical studies. Accordingly, through a comprehensive literature synthesis, the researcher derived five standard stages for any urban design process which are; preparation stage, problem

identification stage, urban analysis stage, vison, strategy generation stage, and finally, the design development stage.

7.3.2.2- Current urban design process

Thereafter, the researcher examined literature to derive the nature of the current urban design process, and accordingly, the researcher discovered that the current urban design process is mainly top-down, which is a professionally led process. This type of urban design process offered the community few opportunities, except in the latter stages of the urban design process, to even comment on already developed plans and designs rather than being actively engaged in the urban design process. However, the most specific feature noted by the researcher was that the current top-down process is not too rigid as there were some attempts to integrate the community into the main framework of the top-down process.

7.3.2.3- Current urban design process and its implications

Thirdly, the researcher explored the literature for the implications of the current top-down process to achieve the current scope of urban design which is sustainability on all three fronts; social economic & environmental. Accordingly, the researcher found both negative and positive implications for the top-down urban design process for sustainable urban design.

7.3.2.4- Bottom-up urban design process versus the top-down urban design process

Subsequently, the researcher investigated literature which discussed the implementation of a bottom-up urban design process. Accordingly, it was revealed that many authors have criticised the top-down process and its nature and they have particularly emphasised the need for a pure-bottom up urban design process. Even though many authors argued for a pure bottom up-process the researcher was unable to determine a clear attempt to test a pure bottom-up process in an urban design context. This literature synthesis demonstrated the need to test and try a pure bottom-up process in an urban design context.

7.3.2.5- Bottom-up process, is it a solid solution?

After exploring the need for a bottom-up process the researcher further examined literature related to the bottom-up processes and discovered that the bottom-up process has also been criticised by many practitioners in urban design as well as some authors. Furthermore, the researcher could see that the bottom-up process has advantages and disadvantages.

7.3.2.6- The need for a new urban design process framework

At this point the researcher clearly understood that there is a definite need to introduce a new urban design process framework to enable urban design to achieve its current scope. However, having noted that the current top-down process should be replaced the researcher recognised that a pure bottom-up process is not the sole solution to this issue. Therefore, the researcher decided to introduce a new community embedded, but balanced urban design process framework. This understanding led to the development of the next objective and finally to the achievement of the aim of the research.

7.3.3- OBJECTIVE 03

The third objective was to identify the key factors of the current UD process to successfully achieve the current scope of urban design. The researcher achieved this objective through a comprehensive literature review and through the implementation of the case study 01. The literature synthesis for this objective is detailed in section 2.5.7. The findings from this literature synthesis were used to triangulate the data in order to increase the robustness of the new conceptual framework after the initial urban design process framework was developed, using two empirical studies.

Under the implementation of the case study 01, it was expected to discover the positive and negative features of the current process and how these features assist in the formulation of key factors which lead to the development of components for a new sustainable urban design process framework. Therefore, based on the primary data analysis of the case study 01, the researcher discovered 7 key factors which were further analysed in order to obtain the components for the initial conceptual framework for the empirical investigation in case study 01. The development of the key factors was one of the major finding in this objective and these are summarised below:

7.3.3.1-Centralised leadership and control

In the empirical investigation in case study 01, it was revealed that centralised leadership is a positive feature in a sustainable UD process, and therefore, the central leader should have control of the urban design process while also having the authority to take the final decisions. (See section 4.4.1 for details)

7.3.3.2-Community Engagement

The empirical investigation for case study 01 recognised community engagement as a key factor. The negative implications of the top-down urban design process in this investigation assisted in the establishment of community engagement as a key factor. The results

demonstrated that the community is keen to engage in the urban design process, especially in the urban analysis, to identify the exact problems in the area and also to explain what causes particular urban issues. (See section 4.4.2 for details)

7.3.3.3- Collaboration with other stakeholders

Collaboration with other stakeholders was the next key factor derived from case study 01. It describes the need for including other stakeholders, such as, local politicians, contractors etc. in the urban design project team. This key factor was revealed by identifying the specific feature of the project based on the empirical investigation in case study 01. In that particular urban design project a support group was established to represent stakeholders, such as, politicians, contractors etc. (See section 4.4.3 for details)

7.3.3.4- Comprehensive urban environmental diagnosis

The next key factor derived, was the comprehensive urban environmental diagnosis, this KF informed the need for analysing the urban environment, based on qualitative and quantitative data, rather than relying on a mathematically quantified urban analysis. In addition to this, the KF recommended that the urban design process should not be a linear process as it should offer the opportunity to reassess the issues before finalising the urban analysis or the urban solutions. (See section 4.4.4 for details)

7.3.3.5- ***Early decision making vs ceasing early decision***

This KF explains the need to avoid making early decisions in the urban design process before actually observing ground level facts and figures. It shows the necessity for urban design process decisions to be taken only after a detailed analysis of the facts and figures, and that the initial findings should be considered only as initial findings, not as final findings which lead to conclusions. (See section 4.4.5 for details)

7.3.3.6- ***Ground level orientation***

The KF ground level orientation informs the UD process and should be conducted by using ground level facts and figures. This indicates that the community should be used as a strong resource in the UD process, and also points to the need for the project team to collect data and information by visiting the urban area rather than obtaining the information from the previous reports and documents. This KF is directly related to the KF 'community engagement.' (See section 4.4.6 for details)

7.3.3.7- ***Knowledge sharing***

Knowledge sharing is another CFS that emerged from this case study. The meaning of knowledge sharing in the UD process is sharing knowledge and experience with other partners who are involved in urban development activities. This is a very specific feature discovered in case study 01 because this project had different project partners who conducted urban design projects across several countries in Europe. Even though this is a good feature to consider, the researcher did not take this KF forward when developing the components for the initial framework as not all urban design projects have partner projects with whom to share knowledge. (See section 4.4.7 for details)

7.3.4- OBJECTIVE 04

The fourth objective for the research was to study and employ the regenerative design process in an UD context to find out the key factors of a bottom-up process to successfully achieve the current scope of UD.

As described in objective 02 there is not an individual, bottom-up urban design process that could be evaluated in order to develop a new urban design process framework. Therefore, the researcher used a bottom-up process which had already been applied to a similar context. The researcher had the preconception that the regenerative design process could be a possible bottom-up process that could be used as a basis for the study and conducted a comprehensive literature review which identified the concept of regenerative design, its different versions and its principals as a basis for the study, and consequently, a version of integrative regenerative design and its principals was used as a basis for the study. (See section 2.6 for details)

Thereafter. The researcher employed, the regenerative design process in an UD context to discover the key factors and negative implications of the regenerative design process to achieve the current scope of UD. The researcher achieved this in the second empirical investigation. In the second empirical investigation the researcher employed the regenerative design process in an urban design project context. By employing the regenerative design process in an urban design context, the researcher inductively obtained the KFs which will lead to the formation of components for the second, initial UD process framework. The inductively obtained KFs informed the viability of the features of regenerative design and how those viable features should be merged in accordance with the urban design project process. Furthermore, the KFs have also determined the non-viable features of the

regenerative design process which should not to be considered when developing a potential UD process framework. Ten KF were identified in the empirical investigation and those 10 KF are summarised below:

7.3.4.1- Assessment of previous work successes or failures

This KF recognised the need for assessing previous development work in order to see whether the development work was a success or a failure. The analysis informed that the current status of the urban entity is an outcome of the previous development work, and therefore, before making any new intervention in the urban entity, it is necessary to assess the previous work in order to engage the best urban design strategies that are suitable for the area. As the KF indicated, the community should be engaged in order to assess the success or failure of previous development work. Furthermore, the professionals who were engaged in any previous development activity should also be consulted while also reviewing documents related to the previous development work. (See section 5.4.1 for details)

7.3.4.2- Non Linearity

One of the specific features that evolved from this study is the non linier nature of the UD process. This non liner nature has been deeply evident in the problem identification and urban analysis stages. Based on this non liner nature, three KFs emerged. These KFs reveal the existence of three interrelated, but three different, analyses that should be carried out at the urban analysis stage of the UD process. They are:

1. Non-linear current situation analysis
2. Non-linear need analysis
3. Non-linear area specific condition analysis

As extracted from the KFs established, the exact meaning of 'non linearity' is referred to analysing the urban environment, based on different sources, rather than relying on a single data source. (See section 5.4.2 for details). As the findings indicated the community should play an influential role in all three instances.

7.3.4.3 Comprehensive area potential identification

This KF is associated with the previous three KFs which focused on the in-depth, non linier analysis of the urban environment. This KF simply means that in the urban analysis it is necessary to have a complete understanding about the potential of the area. The previous

three KFs identified the exact condition of the urban entity, the needs of the community and the other area specific conditions. Accordingly the KF's 'non linier in-depth urban analysis of the current situation' and 'non linier assessment of other area specific conditions' discussed the potential of the area. Therefore, this can be identified as a repetitive KF. However, the researcher found clear evidence which supported the establishment of this KF, and therefore, the researcher presented this as a separate KF. Similarly to the previous three KFs community engagement should be a crucial part in the area potential identification process. (See section 5.4.3 for details)

7.3.4.4 Collaborative central leadership

This KF indicated the need for a central leader in the UD process while also indicating that the project leader should have the ability to coordinate and control the urban design process. However, this KF emphasised that the central project leader should not be the sole decision maker but should always work collaboratively with the other project partners. (See section 5.4.4 for details)

7.3.4.5- Democracy

Democracy is the next KF established from this case study although this KF is directly linked with the sub-sections of the previous KF regarding centralised, collaborative leadership. (See section 5.4.5 for details)

7.3.4.6- Identification of limits and boundaries of development

This KF indicates two key issues that should be considered in the UD process; inform the community about the limits and boundaries of the development and obtain the point of view of the community regarding the possible limits and boundaries of the development which may not be known to the professionals. (See section 5.4.6 for details)

7.3.4.7- Community based strategy generation

This KF specified the need for community engagement at the strategy generation phrase of the urban design process. This is one of the most important KFs too be derived from the analysis and it indicates that the community should have play an influential role in the strategy generation phrase of the urban design project process. The findings further indicated that the community's potential should not be used just to develop strategies for identified issues in the urban analysis but the community should also be allowed to identify strategies for the other place making issues such as creating an identity for the place by linking history and strategies addressing the aesthetic aspect etc. (See section 5.4.7 for details)

7.3.4.8- Selective community based design development

This KF is also one of the most important KFs derived from this study. Accordingly, it was identified that community engagement is not always a positive feature at the design development stage. The results indicated that professionals should make a decision as to whether or not to engage the community at this stage as it is not always a feasible option for the community. Even though community members had shown a specific interest in being part of the urban design process, up to the strategy generation stage, the community is not keen to participate at the design development stage. Furthermore, it was indicated that even though they participate in the design development stage they may not actively contribute to this aspect of the urban design process. (See section 5.4.8 for details)

7.3.5- OBJECTIVE 5

The 5th objective of the study was to develop a new conceptual UD process framework to achieve the current scope of urban design based on the prospects and constrains identified in both the top-down and bottom-up processes.

Objectives 03 and 04 assisted the researcher in obtaining KFs from the empirical investigation into case study 01 and case study 02. Accordingly, after obtaining the KFs from each investigation the researcher further analysed them in order to derive the components for the urban design process framework. Consequently, the two empirical investigations produced two initial urban design process frameworks. Thereafter, the researcher critically evaluated the components of both initial process frameworks in order to build a combined urban design process framework which has the features of both top-down and bottom up processes. Once the initial, combined, urban design process framework was derived the researcher triangulated the framework with the literature informed components for a sustainable urban design process which were established in objective 04. This increased the robustness firmness and validity of the new urban design process framework and having achieved this objective the researcher developed a new conceptual urban design process framework for creating sustainable urban designs. (See section 6.2 & 6.3 for details)

7.3.6- OBJECTIVE 6

Following the accomplishment of objective 05 the researcher developed a new urban design process framework which needed to be validated by experts in field of urban design and this

formed the ninth objective. The key reason for the validation stage was to ensure that professionals in urban design are satisfied that the new developed framework developed as a product would be of use to them; meaning that if the professionals are not satisfied with the process framework it will not be viable in urban design practice. At the validation stage the researcher received many positive comments from the experts and they recommended alterations or changes to specific features in order to increase the validity and robustness of the study. Accordingly, by critically reviewing the experts' views the researcher modified some features of the conceptual process framework which led to the finalisation of the new urban design process framework to create sustainable communities. With the accomplishment of this objective the overall research aim has also been accomplished. (See section 6.4 & 6.5 for details)

7.4- CONTRIBUTIONS OF THE RESEARCH TO THEORY AND PRACTICE

As explored in chapter 02, the current process of urban design is a top-down process and it has often failed to achieve the current scope of urban design. Therefore, many authors have argued the need for replacing the current top-down process in urban design; attempts at slight changes to the features of the current top-down process were less than successful. At the same time some authors are convince of the need to introduce a bottom-up process to replace the current top-down process but no particular theory was formed to introduce a bottom-up process to replace the top-down process. At the same time the suggested bottom-up process has its own critics. Accordingly, some researchers have indicated the need of a new theory for the urban design process which integrate top-down and bottom up processes resulting in a balanced urban design process influenced by the both processes. However, there is no significant movement to introduce a new urban design process framework which is influenced by the KFs from both urban design processes. This research study has critically evaluated the features of both top-down and bottom up processes and, based on the KFs that emerged from both processes the researcher developed a new community embedded, conceptual urban design process framework for urban design which is a significant contribution to the theory addressing the need of a new balanced urban design process.

This research does not merely contribute to the theory as the study examined the critical issue in practice. The duty of the practitioners in urban design today is to create sustainable places on all three fronts: social economic & environmental sustainability. However, the

current top-down urban design process framework often fails to do that resulting in places designed by urban designers that are not used by the community or sometimes the urban design solutions delivered by professionals does not address the exact urban issues but instead make them worse. Therefore, to overcome this situation, a community based urban design process is required but professionals always fear a bottom-up process remarking that they lose control of the project, and therefore, they cannot achieve the project deadlines or effectively manage the project to provide their input. Due to this, they reject the bottom up process even though the top-down process does not solve the issues. In the circumstances, the process framework developed by the researcher is an innovative solution to the problem in practice as the new urban design process framework will enable urban designers to engage the community effectively while retaining control and power over the project. Accordingly, using this process framework in an urban design project in a neighbourhood context will be highly beneficial to professionals in practice and because the researcher has validated the framework via practitioners in the field of urban design the validity of the framework for use in practice is further increased.

7.5- LIMITATIONS OF RESEARCH

Despite the fact that the researcher increased the validity and the robustness of the research by employing different research methods and techniques, the interpretive philosophical nature of the study has inherit limitations. The findings from this study are context sensitive to the participants in the case studies as well as to the experts' interviewed. Accordingly, as per the nature of study, the findings are mainly subjective. However, the researcher has taken precautions to increase the validity of the research by different means (see section 3.13). Although caution was exercised (see section 3.13), replication and generalisation of the findings to a different urban context may be different. However, this research has provided a framework for urban designers which can be used as a guideline for conducting urban design projects rather than simply relying on the current top-down urban design process which has frequently failed or just criticising the bottom-up process.

In addition the researcher experienced some research specific limitations in this study which may have slightly affected the findings even though the researcher has taken precautions to minimise the impact of these limitations. The research specific limitations are stated below:

1. In case study 01 the researcher expected to examine a top-down urban design process in order to discover the positive and negative features and obtain KFs from the design process. Accordingly, even though the urban design process in case study 01initally seemed to be a standard top-down urban design process, the researcher identified some specific features in this process which differentiate the urban design process in case study 01 from a standard top-down process. (See section 4.3). Therefore, the results derived from case study 01 may not exactly represent the KFs which could have been emerged by employing a standard top-down urban design process. However, even though the project had some specific features which differentiate it from the standard top-down process, the unique features of a top-down urban design process were widely represented and maintained in the project in case study 01, therefore, even though the researcher identified this as a limitation it has only had a minimum effect on the final result.

2. The second research specific limitation was identified with regards to the employment of the regenerative design process in study 02. The regenerative design process relies on team work where a team of 'Regenisist' handle the whole process. However, in this case the researcher handled the whole regenerative design process as an individual researcher in an urban design context. In view of this some drawbacks can be expected in employing features of regenerative design in an urban design project context managed by an individual. However, the researcher kept this limitation to a minimum by obtaining the help of the local authority planning and designing team as much as possible and in employing the features of the regenerative design process in the urban design project process.

3. The other research specific limitation is the parallel top-down urban design process conducted with the employment of the bottom-up process. As stated in section 5.2 the researcher employed the regenerative bottom-up process in a live urban design project. However, the local authority members who conducted the project in real life followed the standard top-down process. Therefore, at some points the community were already aware of the project conducted by the local authority using the top-down process. Therefore, at some community consultation points the community had a brief idea about the strategies developed or being reviewed in the top-down urban design process. Therefore, the involvement of the community may have been

influenced by that particular top-down process which is unavoidable when the researcher works with a live urban design project and the respective authority employs a different urban design process.

7.6 -FUTURE RESEARCH

This research study developed a community embedded new urban design process framework by investigating the KFs that emerged from the top-down and bottom-up urban design processes. Even though the researcher validated the findings via experts in the field of urban design the new urban design process framework was not implemented in an urban design project context on a neighbourhood scale. Therefore, the best future research for this study is utilising this process framework in an urban design project context in order to establish its viability as well as identifying its limitations.

In addition, this study investigated only the urban design development process and not the urban design project implementation process; therefore, future research which focuses on the urban design implementation process will add value to this study and will develop a complete urban design process which consists of both the urban design development process and the implementation process.

7.7 FINAL NOTE

This research developed a new urban design process framework for the creation of sustainable urban designs by critically evaluating the features of the current top-down urban design process and bottom-up urban design process. This research provides novel contribution to the theory and knowledge of urban design by introducing a new urban design process framework.

From a practical implementation point of view, urban designers and planners can use this framework as a guidance manual to conduct the urban design process in order to have better results in achieving the current scope of urban design which is the creation of sustainable urban environments on all three front (see section 7.4).